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THE PRESENT LABOR SITUATION
COMPULSORY INVESTIGATION AND ARBITRATION

The Annals

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THE PROBLEM OF RAILWAY TRAINMEN'S WAGES

By Julius H. Parmelee,

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I Economic Considerations

Steam railways of the United States had an average pay roll during the fiscal year ended June 30, 1916, of not far from 1,700,000 persons, and paid out some $1,500,000,000 in wages. These enormous, almost inconceivable, aggregates represent the activities of an industry which, not only because of its magnitude but also because its operations are the pulse-beats of the nation's economic life, is of the most vital interest to every citizen. Since the item of compensation to employes represents two-thirds of the total expenditures of the railways, we see why the problem of railway wages lies so close to our minds and our pocketbooks. Of especial importance is the problem when, as in the eight-hour day agitation of the railway trainmen in 1916, any increase in rate of pay, resulting in an increased wage aggregate, threatens to translate itself almost immediately into increased freight or passenger rates.

II Basis of Trainmen's Compensation

Railway trainmen represent a group of employes whose basis of compensation differs from that of any other class of labor, either within or without the railway industry. Not only is their work peculiar to the railway industry, but it is *sui generis* as to method of compensation. The problem of the hours of labor and the wages of trainmen has been before the public now daily for months, and we are likely to become even more intimate with it before the year 1917 is far advanced, yet I venture the statement that not one man in a hundred can explain the underlying features of wage payments to trainmen, the method of computing their compensation, the various alternative methods or bases of computation afforded the men, the rules and regulations that modify the computations, and so forth. Yet there must be some conception of the problem in detail, before there can be sound judgment as to the merits of the claims made by

the trainmen or the replies of the railways thereto; it is worth while, therefore, to attempt a brief summary of the problem.

Just how, or why, the basis of railway trainmen's wages is what it is, or when or where it came into being, is beyond the scope of the present discussion. Suffice it that today, and for some years past, trainmen's compensation has been computed on a mileage, that is, a piecework, basis. If this were all, the problem would be comparatively simple. Unfortunately for the layman, however, a number of additional factors enter in to complicate the question, the most important of which is the time-limit principle, designed to protect the men on the slower freight trains. This time-limit principle provides, in brief, that a trainman is paid on a mileage basis except when his time slip shows that his hours on duty exceed a time-limit proportionate to his mileage. In the latter case he is paid on a time basis.

Both in freight and passenger service on most railways, the wage schedules provide that 100 miles or less shall constitute a day's work. The passenger service is usually on a speed basis of twenty miles per hour, and the freight service ten miles per hour. That is, the standard working day is five hours for passenger crews and ten hours for freight crews. A man called for work is guaranteed a full day's pay no matter how few hours he works or how few miles his train runs. If a freight engineer is on duty ten hours or more without running 100 miles he is paid as much more than a day's pay as his hours are above ten, and if he runs 100 miles or more in less than ten hours he is paid as much more than a day's pay as his miles are above 100. If he either works more than ten hours or runs more than 100 miles, or both, he receives payment for the overtime or the excess mileage, whichever produces the greater amount of wages. In other words, if the freight train on which a man is employed averages less than ten miles an hour he is paid on the hourly basis; if it averages more than ten miles, he is paid on the mileage basis. The result is that practically no train employes work more than ten hours for a day's pay, and thousands work less. Thus, the ten-hour day in railway train service merely indicates the *maximum limit* of time for which a day's pay is granted, although in other industries a ten-hour day means that employes not only do not work more than ten hours, but also do not work less than ten hours, to earn a day's pay.

III The Trainmen's Brotherhoods

Railway trainmen maintain perhaps the best organized labor unions in the world, closely knit together, ably generalled, well financed, with a keen consciousness of their power. The Brotherhood of Locomotive Engineers, organized in 1863, has now 75,000 members. This organization has been termed "perhaps the most aristocratic of trade unions." The Brotherhood of Locomotive Firemen and Enginemen, organized in 1873, reports about 85,000 members; the Order of Railway Conductors, organized in 1868, reports about 50,000 members; while the Brotherhood of Railroad Trainmen, organized in 1883, reports a membership of 135,000.

These four organizations, commonly known as the "brotherhoods," comprise about 350,000 members, or about nine-tenths of the total number of railway trainmen in the United States. Trainmen received in 1916 wages aggregating about $400,000,000. That they are among the best paid railway employes is shown by the fact that they form about 17 per cent, or not quite a fifth, of the total number on the railway pay roll, but receive about 27 per cent, or over one-fourth, of the total wages. They have also what are probably the largest earnings of any large class of skilled labor in the world. Official returns of trainmen's earnings in 1916 have not yet been filed by all the railways with the Interstate Commerce Commission, but preliminary tabulations covering 124 roads, with an operated mileage of 144,000 miles, indicate average annual earnings approximating $1,970 for enginemen, $1,200 for firemen, $1,700 for conductors, and $1,045 for other trainmen.

IV The Demand of 1916

The four brotherhoods came together in 1916 for a concerted demand on the railways, their employers. Each of the brotherhoods had waged regional fights before; in several cases two or three of the brotherhoods had joined hands in a regional fight for higher rates of pay. But no one brotherhood had made nation-wide demands before, nor had the four brotherhoods worked together even in regional demands. It was for the first time, then, that the four brotherhoods joined forces in 1916 and made a concerted demand on practically all railways of the United States, on behalf of all the trainmen. Here, indeed, was an impressive demand, not only in-

volving 350,000 to 400,000 workers directly, but threatening to throw out of work perhaps a million other railway employes, who would be forced to quit their duties if the trainmen, failing to gain their ends peaceably, should tie up railway operation by means of a strike.

The gist of their demand was as follows: In road service, 100 miles or less, eight hours or less, shall constitute a day; overtime shall be computed on a time-and-one-half basis, and will begin after eight hours on a run of 100 miles or less, or on a longer run when the time on duty exceeds the miles run divided by twelve and one half. The eight-hour day shall replace the ten-hour day in yards, overtime shall begin after eight hours, and shall be computed on a time-and-one-half basis.

On the face of it, this demand simply replaces the ten-hour day with an eight-hour day, and establishes an overtime rate of time-and-a-half. As a matter of fact, there are several underlying features that considerably affect the bearing of the demand. Notice, for one thing, that the brotherhoods do not abandon mileage as the chief factor in computing compensation, but strengthen the time-limit principle by increasing the speed basis from ten miles to twelve and one half miles. Again, the demand applies only to the freight service, although this is not specifically stated; for practically all passenger wage schedules establish the basic day of five hours. Still further, and most important of all, the demand recognizes the exigencies of train operation by claiming overtime pay on runs over 100 miles not after eight hours, but after such number of hours as represents the mileage divided by twelve and one half. Thus on a run of 125 miles overtime would not commence until ten hours had elapsed; on a run of 140 miles, eleven hours and twelve minutes; and so on. This point is of great significance, and will be developed later.

The demand of the trainmen was formally made in March, 1916. Through various stages negotiations proceeded till they landed both sides in absolute deadlock. In June of that year the brotherhoods proceeded to take a "strike vote," or referendum, indicating the willingness or unwillingness of each individual trainman to go on strike in order to gain the desired ends. Under the constitutions of three of the brotherhoods the leaders have no authority to call a strike unless and until directly empowered to do

so by referendum vote of two-thirds of the members involved. In late July, 1916, the result of this vote was announced as overwhelmingly in favor of a strike, and negotiations were resumed. These again resulted in deadlock, and the President intervened to save the situation, if possible, and avoid a national railway tie-up, with all its attendant suffering and ruin.

V THE ADAMSON EIGHT-HOUR LAW

The result of the President's efforts is still fresh in our minds. After protracted conferences with both sides, it was discovered that a secret strike order had been issued by the brotherhood leaders, effective on Labor Day. At the President's behest, Congress thereupon enacted the so-called Adamson eight-hour law, which was approved on the eve of the strike and just in time to stay it.

Section 1 of the law provides that

> eight hours shall, in contracts for labor and service, be deemed a day's work and the measure or standard of a day's work for the purpose of reckoning the compensation for services of all railway employes . . . . engaged in any capacity in the operation of trains used for the transportation of persons or property.

Section 2 creates a commission of three, to "observe the operations and effects of the institution of the eight-hour standard work-day."

Section 3 provides

> that pending the report of the commission . . . . and for a period of thirty days thereafter the compensation of railway employes subject to this act . . . . shall not be reduced below the present standard day's wage, and for all necessary time in excess of eight hours such employes shall be paid at a rate not less than the pro rata rate for such standard eight-hour work-day.

The provisions of the act were made effective January 1, 1917.

VI THE RAILWAYS AND THE EIGHT-HOUR WORK DAY

Certain specific reasons are given by the railways for opposing the principle of an eight-hour working day in train operation.

First. Passenger and freight trains are run at all hours of the day and night. Trains that run on a regular schedule must be manned with crews, no matter what hour of the twenty-four it may be. Trains that do not run on schedule are usually the slow freight trains, handling local or way freight. These are frequently

sidetracked to allow the passage of passenger trains and of scheduled freight trains; they are necessarily sandwiched into the train dispatcher's scheme as best he may arrange for them; they are the footballs of the tracks, and there can be no thought of running them within any regular time limits. Even through freight trains, and sometimes mixed passenger and freight trains as well, may fall into this same category. The situation is further complicated by the evident necessity of running trains at varying rates of speed. Hence arises the impossibility of putting all trains onto an eight-hour basis, or some trains even onto a ten-hour basis. This is the principal railway argument against the eight-hour work day. As we have seen, the argument has a basis in that provision of the trainmen's demand which, on runs above 100 miles, defers the payment of overtime as much beyond eight hours as the mileage is more than 100. By including such a provision in their demand, the trainmen clearly recognized that the eight-hour maximum work-day is not feasible on all runs or under all conditions.

Second. At most of the railway terminal points towns have sprung up and the railways have expended millions in purchasing land, laying out freight yards, and building necessary roundhouses, repair shops, freight depots and warehouses. These facilities have been distributed along the line of each road at various intervals, which are generally covered by the slower freight trains in from ten to twelve hours. Now shorten the work day to eight hours, and you must either move your terminals nearer together or speed up your trains.

Third. The alternative of moving terminals closer together is clearly out of the question. Not only would it cost billions in money, but the change would throw countless communities out of their line of natural development, would disturb property values, and in any case would be well nigh impracticable as a physical accomplishment. Were the railway network to be constructed in the future, or were even now in process of construction, the thing might be practicable; with the railway system already established and solidified, however, this alternative is unthinkable.

Fourth. To speed up freight trains is the other alternative. It would require freight crews to make their runs in eight hours or less instead of ten, or to put it differently, to average twelve and one-half miles an hour instead of ten miles. This alternative has

been proposed by the trainmen themselves as a solution of the problem, and was in fact the speed basis established by their demand of 1916. Run your freight trains a little faster, they argue, cut down the number of cars or increase the engine power if necessary, but at any rate increase your train speed.

Here is the railways' answer: All past increases in cost of capital, of materials and supplies, and of labor have been neutralized only by increasing the efficiency of railway operation. This has consisted almost wholly in increasing the capacity of freight cars, the number of cars in a train, and above all the length and weight of freight trains.[1] All these factors of increased efficiency have served merely to offset the increasing costs of operation, which are indisputable. They have also served of necessity to slow down the normal rate of speed of the long, heavy trains, both on the line and in terminal yards.

Another advantage claimed for larger train loads is their favorable effect on the safety of railway operation; the larger the average train load, the fewer are the trains required to handle a given amount of freight. This lowers the density of traffic, reduces the chances of collision at meeting and passing points, and increases the margin of safety. This is especially true where speed is necessarily reduced because of great train weight and length.

Without dwelling on this point of comparative safety, it is clear that if increased physical efficiency has served to offset the increasing costs of operation, then lowering that efficiency by decreasing length of trains and size of train loads to secure increased speed will mean increased operating costs, which in turn must be offset by increased revenues. And increased revenues can only be had by means of higher freight and passenger rate levels.

This brings us to the kernel of the railway point of view, and to their specific arguments against the eight-hour work day. If you cannot move your terminals, then you must either speed up your trains, sacrificing efficiency and increasing your operating costs thereby, or else you must maintain your present operating conditions, run your freight trains ten hours or more a day, and be pre-

[1] From 1910 to 1915 average freight car capacity increased from 36 tons to 40 tons, number of cars per freight train from 28.3 to 34, average train load from 380 tons to 474 tons, average tractive power per locomotive from 27,300 pounds to 31,500 pounds.

pared to pay an annual overtime bill variously estimated up to sixty millions. Long heavy trains unquestionably require greater running time than lighter trains; lower speed is a part of the price paid for efficiency; if, then, the public demands operating efficiency, using the term "efficiency" in its physical sense, it must pay the bill in the shape of overtime payments to trainmen; if, however, the public demand emphasizes the eight-hour work day feature, then efficiency must be sacrificed and the toll will be higher operating costs in the form of a larger force of trainmen to handle the traffic. To put it differently, the one alternative will call for more compensation to the present operating force; the other alternative will call for a larger operating force, the average earnings of each member of the force remaining as at present. Both alternatives will increase the *aggregate* cost of railway operation.

VII THE EFFECT OF THE EIGHT-HOUR LAW

Railway officials and the trainmen have given considerable thought, and have held a number of conferences, regarding the meaning of the eight-hour law, and the courts have also been called upon to interpret it. Discussion has centered on the meaning of the words of the first section reading "eight hours shall, in contracts for labor and service, be deemed a day's work and the measure or standard of a day's work for the purpose of reckoning the compensation for services." The whole situation hangs on this phrase, which makes no mention of miles run, but only of hours per day.

Some have emphasized the phrase "be deemed a day's work," and have argued that this calls for an actual *work day* of eight hours, no more and no less. They point also to the words "eight-hour standard work day," in the second section as corroborating their position[2]. A passenger engineman or conductor who now runs his 100 miles in four hours would, under this strict interpretation, be required to put in another four hours or be satisfied with half a day's pay. If the courts uphold this interpretation, the railways might be forced to grant compensatory privileges that would neutralize the eight-hour requirement. They might, for example,

[2] In this connection it is significant that the President's annual message to Congress, December 5, 1916, states that by passing the eight-hour law Congress "established the eight-hour day as the legal basis *of work* and wages in train service." The italics are mine.

be forced to double the rate of pay per 100 miles in passenger service; the engineman could then well afford to stop at the end of his four-hour run, having earned the equivalent of his former day's pay in what under the law would technically be only half a day.

Others have emphasized the phrase "measure or standard of a day's work for the purpose of reckoning compensation," and argue from this the intention of Congress to make eight hours the basic *pay day* rather than work day. This view is strengthened in that the act provides overtime pro rata for every hour above eight.

How sound the varying interpretations of the eight-hour law may prove to be, only the future will show, and much will depend on the findings of the commission of three provided by the act and already constituted by the President as follows: Major General Geo. W. Goethals, U. S. A., chairman; George Rublee, of the Federal Trade Commission; Edgar E. Clark, of the Interstate Commerce Commission. This commission has a maximum of ten months, or until November 1, 1917, within which to file its report, and the railways must hold to the provisions of the act for thirty days thereafter. What will then come to pass is given only to a seer to surmise.

If the railways have established their argument that the eight-hour law means increased operating costs, the final question must deal with the amount of the increase and the incidence of the burden.

It is clear that the public in the last analysis pays the cost of railway transportation. Whether or not a given sum can be absorbed by the railways for the time being without increasing transportation rates is a less important consideration than the actual amount by which such a provision as the eight-hour law will increase railway expenses. To ascertain this amount is well nigh impossible until the necessary readjustments have been made. If the eight-hour principle becomes firmly established as a factor in train operation, it is not unreasonable to suppose that the pressure of circumstances will gradually extend the same principle into other branches of railway operation, each extension bringing its burden of increased cost. For the economic principle that decreased hours of labor do not necessarily lead to increased costs may or may not apply to the railway industry. Even if it does prove applicable, it must not be forgotten that the demand of the railway

trainmen in 1916 for an overtime rate of time-and-one-half is as yet unappeased. This feature of the demand, the railways have estimated, will add not less than forty millions to their annual wage bill. Thus the eight-hour law may prove but the opening wedge to a considerable increase in the future cost of railway operation.

VIII CONCLUSION

Two questions remain to be answered. First, did the trainmen's demand contemplate a real eight-hour day, or was it merely a bid for higher rates of pay? And second, what did the eight-hour law give them?

As to the first question, the brotherhoods have consistently claimed that their demand for a so-called "punitive" overtime rate—that is, a rate so much above the regular hourly rate that the railways would strive to avoid overtime—proved the sincerity of their avowed desire for a maximum work day of eight hours. In their journals they usually spoke of their demand as one "for an eight-hour work day, with a penalty for overtime of time and a half pay." We have seen, however, that the force of this claim is weakened by the provision in their demand for deferring overtime on runs above 100 miles. This provision is evidence that the brotherhoods realized the impossibility of enforcing the eight-hour principle on the long runs. The railways have just as consistently claimed that the trainmen were seeking higher rates of pay rather than shorter hours of work, and that the principle of punitive overtime was inserted merely as one element of increased pay. Knowing that the running time of trains could be shortened but little, if at all, the trainmen figured that the time-and-a-half provision would increase their compensation for all the long runs.

The second question concerns actual conditions, that is, the effect of the eight-hour law. To contrast what the trainmen demanded with what the law gave them, the main points in each may be summarized as follows:

The Demand	*The Law*
1. Ten hours' pay for eight-hour day.	1. Ten hours' pay for eight-hour day.
2. Time and a half for overtime.	2. Pro rata for overtime after eight hours.

Thus the law gave them only part of what they sought. As the matter now stands, by providing pro rata for overtime the law makes it a matter of little moment to the railways whether the running time of a train is long or short, provided only they maintain the speed rate implied in the law. Thus for a run of 125 miles the train crew will receive one and a quarter days' pay, because of the mileage pay basis, and it makes little difference to the railway whether the day is measured by eight hours or ten hours. If the shorter time, then the extra quarter day's pay will be for excess mileage; if the longer time, it will be for excess time. However denominated, the amount actually paid for the run will be the same in either case.

Under the eight-hour law, every run for which the hours exceed eight by a percentage greater than that by which the length of the run exceeds 100 miles, will carry an increase of pay to the train crew. And the proportional increase will be more, the greater the percentage of hours above eight exceeds the percentage of miles above 100. This holds for all cases where the mileage basis of pay remains in force.

The increases the eight-hour law will bring the men in road service will be on those long runs that cannot be completed within the time limit of miles divided by twelve and one-half.[3] If the railways are correct in their statement that the running time of these trains cannot be shortened, then the aggregate pay roll in the slower freight service will be considerably increased. But, mark you, this will not be the result of any shortening of working hours, but of an increase in the basic hourly rate of pay. This confirms the contention of the roads that the demand of 1916, and more especially the eight-hour law, provides not a shorter basic *work day* but a shorter basic *pay day*.

If additional proof of this fact were needed, it is furnished by comparing the language of the sixteen-hour law and telegraphers' nine-hour law of 1907, with the so-called "eight-hour" law of 1916. The hours of service act of March 4, 1907, made it unlawful for any railway "to require or permit" employes engaged in train operation to remain on duty longer than sixteen hours; similarly, it provided that no telegraph or telephone operator connected with the movement of trains "shall be required or permitted" to remain on duty

[3] There is some question whether the law applies to yard and work service, where the time basis of payment usually holds.

longer than nine hours. In both cases there is a distinct prohibition of longer hours than the sixteen and nine respectively prescribed. In the case of the "eight-hour law" of 1916, however, there is no such prohibition. The provision simply is that "eight hours shall be deemed a day's work," and by fixing overtime rates of pay the law clearly indicates the belief of its framers that overtime work is not only necessary, but to be expected.

If, then, the Adamson eight-hour law does not *ipso facto* provide an eight-hour working day, and if the principal result of the law will be, as we have seen, to increase either the number of employes or the amount of overtime payments, then it follows that the effect of the law will be essentially to increase the aggregate of railway wages.

THE CASE OF RAILROAD EMPLOYES FOR AN EIGHT-HOUR DAY

By W. Jett Lauck,
Washington, D. C.

Any discussion of the eight-hour day for transportation workers is now limited to a presentation of the opposing points of view. Data are not available upon which to base a conclusive verdict as to the merits of the practical phases of the controversy. To a large extent, a discussion of the matter is at the present time, as President Wilson has stated, "an adventure in conjecture." It was for this reason that he recommended the establishment of a commission to gather the facts bearing upon an eight-hour working day in the railroad service before the actual adoption of such a working basis for railway operations.

There can be little dispute as to the desirability of having a shorter work day in the transportation industry and other branches of industrial activity. During the year and a half of ceaseless controversy which has characterized the current movement for an eight-hour day for transportation workers, railroad officials have not attacked the fundamental principle involved. All their opposition has been centered upon the practical aspects of the matter. Their argument has been that from the technical standpoint of railway operation the shorter work day cannot be adopted if the present efficiency and earnings of the railroads are to be maintained. This is another way of saying that on the present basis of railway earnings the companies cannot afford to meet the alleged increase in operating costs which would follow the establishment of the rule that eight hours should constitute a day's work.

The real opposition is one of expense. How large or how small the additional expenditure may be, no one knows. If the facts have been compiled, they have not been made available. They cannot be obtained from the data in the published reports of the railroads or those which are filed at the Interstate Commerce Commission. The results of the work of the eight-hour commission must be awaited before any satisfactory light can be secured upon

this fundamental point in the controversy. Stated in its practical form the questions as to an eight-hour day, therefore, are: What will the adoption of an eight-hour day by the railroads cost? Does the public consider the railroads able to pay for an eight-hour day? If not, does the public so believe in the principle that it is willing to pay for it if any payment in the form of increased freight and passenger rates is necessary?

The railroad employes have a firm conviction as to the fairness and justice of their request for an eight-hour day. From the standpoint of the employes in freight train service, the fundamental need for an eight-hour day is based on the fact that working conditions have reached a stage where they are practically unendurable. Under the best conditions, the requirements of railway service are very onerous. Train and engine employes are subject to calls for duty at all hours of the day and night; a large part of their time must be spent in terminals away from their homes and families; in their work, the normal danger of accident or death is very great; they constantly bear heavy responsibilities for the safe handling of lives and valuable property entrusted to their care.

These conditions of employment are quite different from any which prevail among workers in mines, the manufacturing industries or among skilled artisans. They are necessarily incidental, however, to the operation of trains. Engine and train crews expect to meet these conditions when they accept work. When to these more or less natural conditions of employment, however, there have been added arduous labor and heavy responsibilities arising from the desire of the railway managements to secure larger revenues, the situation has become one against which they find it absolutely necessary to enter a protest.

During recent years, railway operating officials have constantly striven to secure greater efficiency or, stated in other words, have attempted to lower the costs of operation by adding to the length and tonnage of freight trains. The development of heavier freight train loads and larger freight train earnings per mile has been the goal of all railway operating officials. Engines of greater and greater tractive power have been installed, freight cars of constantly increasing capacity have been built, the number of cars in trains has been increased, the roadbed has been strengthened, heavier rails laid, new bridges constructed, grades reduced and curves elim-

inated,—all for the purpose of getting heavier trains over the roads with the object in mind of reducing operating costs. Railway officials discovered that it was cheaper in many instances to load the engines to the limit—to the point where they could only drag the trains over a division at a very slow speed—than it was to send two trains of half the weight over the division in a shorter space of time. Although some overtime must needs be paid to the enginemen and trainmen, the railroad experts estimated that it would be cheaper to pay this for the heavier trains than it would be to have to meet the wages of two crews for the lighter trains.

The general purpose of curtailing operating expenses and increasing profits, in its bearing upon the well-being of employes, was commendable if it had been kept within proper bounds. But the so-called "tonnage craze" was pressed forward to such an extent that railway workers believe they have become its victims. The factor of speed in moving trains was eliminated by railroad officials and working conditions quickly reached a stage which employes declared intolerable. Slower speed meant that a longer time was required for a train to pass from one terminal to another. Engine and train crews which had formerly been paid on a mileage basis were practically confined to an hourly basis of compensation and the opportunity for increasing their earnings was curtailed. They received compensation for time worked in excess of ten hours, but the physical disadvantages of being so long on duty, not to mention the unsatisfactory conditions arising from being absent from home for such extended periods, far exceeded any pecuniary considerations. With such conditions of employment railroad employes were forced to request a shorter working day.

The excessive hours of labor to which engine and train crews have been subjected in recent years may be quickly shown by a few statements from official sources. According to the sworn statements of the railroads in a recent wage arbitration case, out of each thousand engineers and firemen employed by the western railroads in freight service in October, 1913, eight hundred and seventy-seven had a working day of more than ten hours, three hundred and forty-seven more than twelve hours, one hundred and eighty-one worked thirteen hours or more, seventy-two worked fourteen hours or longer, and thirty out of each thousand employed averaged fifteen hours or longer a day. In through or irregular

freight service alone, 35 per cent, and in local or way freight service, 54 per cent of the engineers and firemen averaged twelve hours or longer each day. On certain divisions of some of the western railroads, the normal working hours were even in excess of these averages.[1]

As to the eastern operating district, the railroads in 1913, during the course of arbitrations with their eastern employes, submitted exhibits which showed for October, 1912, firemen and other employes in slow freight service were on duty on an average for all roads, eleven hours and forty minutes. In the case of some railroads, the average time on duty each day was more than fourteen and fifteen hours. In local freight work and wreck train service, the average daily working time of engine and train crews in eastern territory was more than twelve hours.[2]

Engine and train employes do not deny that through direct negotiations with the railroads, or by mediation and arbitration proceedings, they have, during recent years, secured advances in their rates of pay. On the other hand, they do not concede that advances in operating costs of the railroads have been primarily due to added outlays to transportation employes. Train and engine crews, they claim, have given to the transportation companies more than they have received in increased rates of pay. This fact is clearly shown, they declare, by the reports of the railroads themselves to their stockholders and to the Interstate Commerce Commission. Although engineers, firemen, conductors and trainmen have received advances in rates of pay during recent years, they have had to work harder, and have handled more traffic each year for each dollar of additional compensation received.

Transportation employes are piece-workers. They are engaged in handling freight and passenger traffic. The requirement for a standard day's work is to haul so many tons of freight or so many passengers 100 miles. If the weight of a freight train is increased the cost to the railroads for labor in handling each ton of freight 100 miles is less.

The growth in weight of freight trains has been more rapid than

[1]Arbitration—Western Railroads and Brotherhoods of Locomotive Engineers and Firemen 1914–1915. Railroad Exhibit No. 29.

[2]Arbitration—Eastern Railroads and Brotherhoods of Conductors and Trainmen 1913. Railroad Exhibits Nos. 9, 10.

the advances in rates of pay to transportation employes. Engine and train crews have transported proportionately a greater volume of freight than they have received increases in wages. As a consequence, the labor cost to the railroads of engine and train crews has decreased.

During the course of the recent arbitration between the western railroads and their engineers and firemen, it was shown that the proportion of total operating expenses arising from payments to transportation employes was 14 per cent less in 1913 than in 1890. In 1913 it was also shown that wage payments to transportation employes required only nineteen cents out of each dollar of revenue earned by western railroads as compared with twenty-one cents out of each dollar of revenue in 1890. When considered on the basis of freight tonnage, it was found that it cost the railroads for wages to locomotive engineers and firemen sixty-five cents for each 1,000 tons carried one mile in 1890, while, in 1913, engineers and firemen transported 1,000 tons one mile for only thirty-three cents, a decrease in cost to the railroads, for these employes alone, during this period of slightly more than 50 per cent. It was also shown further by exhibits submitted during the western arbitration that during the more recent period, 1900–1913, the cost to the transportation companies for wages of engineers and firemen decreased 12 per cent for each 1,000 tons of freight hauled one mile.[3]

The latest reports filed at the Interstate Commerce Commission also bear out these statements. If all the railroads of the United States—including the best and the worst, the prosperous and the insolvent—be grouped together as one operating system, their reports to the Interstate Commerce Commission show that in 1914 it cost them in wages of engineers and firemen only 31.1 cents to transport 1,000 tons of freight one mile, as compared with 42.7 cents in 1895. In other words, during the past twenty years, the cost to the railroads in wages of engine crews for hauling freight declined more than 27 per cent. The reduction by geographical districts may be quickly seen from the accompanying statement.

From a technical standpoint, the employes assert that the eight-hour day is practicable because it already is in successful operation on a considerable proportion of the railways in the United

[3]Arbitration—Western Railroads and Brotherhoods of Locomotive Engineers and Firemen 1914–1915. Employes Exhibits Nos. 31, 32, 33.

WAGES TO ENGINEERS AND FIREMEN, 1895 AND 1914.

District	Wages paid for hauling 1,000 tons one mile		Per cent of decrease, 1914 over 1895
	1895 (Cents)	1914 (Cents)	
East	35.8	29.3	18.1
South	40.3	32.4	19.6
West	56.0	33.0	58.9

States. Locomotive engineers now have an eight-hour day in through freight service on 55 per cent, and locomotive firemen on 20 per cent of the railroad mileage of the South. In this territory west of the Mississippi, about 5 per cent of the total number of miles of road operated have an eight-hour day for engineers and 3 per cent have the same working day for firemen.

As to the cost of an eight-hour day under a strict application of the eight-hour day principle to railroad operations, it would be necessary in many instances for the railroads either to shorten the distance between terminals or to reduce their freight train loads so as to be able to maintain a speed basis of twelve and one-half miles an hour or a hundred miles in eight hours. Either of these measures, when necessary, would add to the cost of railway operations. According to the original requests of the transportation employes, however, no costly terminal changes would be necessary. It was acknowledged by the employes that it would be impracticable to compel railroads to change their division points so that each and every division should be 100 miles apart. Special provision was made in the first article of the requests of employes that so long as the mileage of an engine or train crew was equivalent to or exceeded twelve and one-half miles an hour, there would be no increased compensation to employes for overtime. If terminals were 150 miles apart, for example, the railroads would escape all overtime penalty if they did not keep their engine and train employes on duty longer than twelve hours.

An eight-hour day in passenger service, the employes contend, would not cost the railroads a single dollar, because the daily minimum of a 100 miles is accomplished in less than eight hours. During the recent arbitration case between western railroads and their

engineers and firemen, the railroads presented elaborate statements based on their official train sheets and other records for the month of October, 1913, which was one of the busiest months in railroad history during the past fifteen years. This exhibit showed that the average time of 78 per cent of through or irregular freight service on all railroads west of the Mississippi River in October, 1913, between terminals 112 miles apart was eight hours and twenty-four minutes. Transportation employes, therefore, in almost four-fifths of the through or irregular freight service in the West, which constitutes about three-fifths of all freight train mileage, do produce their 100 miles, the standard for a day's pay, within seven hours. It would follow, according to these sworn statements of the railroads, that on slightly less than half of the freight traffic of the West the adoption of the eight-hour day would require no additional labor outlay. The remaining 22 per cent, or slightly more than one-fifth of the total through freight trains, accomplished their runs at a speed of less than ten miles an hour, and were twelve hours and eighteen minutes between terminals 102 miles apart, or would require twelve hours between terminals 100 miles distant from each other. Additional outlay would, therefore, probably be required for the adoption of an eight-hour day on only one-fifth of the through freight service in the West. No overtime at an advance of 50 per cent over regular rates, however, would be paid unless the railroads found such overtime payments to be profitable. The traffic could be sent over the heavy divisions in lighter trains, which would make a speed of twelve and one-half miles an hour. Under any change in operating conditions which might be made, only 7 per cent of the total pay roll would be affected for the reason that through or irregular freight train mileage constitutes only 32 per cent of the total train mileage of the West and only 22 per cent of this proportion would involve a longer working day than eight hours.

In the case of local or way freight, and in construction or work train branches of the service, it was also shown, by exhibits presented in the western arbitration already referred to, that about 30 per cent of the local freight trains in the West accomplished their runs at a speed greater than ten miles an hour. Approximately 70 per cent of the local freight traffic, therefore, is handled in the West by engine and train crews which work longer than eight hours each day. But local or way freight train mileage in the West constitutes only about

12 per cent of total train mileage, and as only 70 per cent of this would be below the speed of twelve and one-half miles an hour, only 8 per cent of the aggregate wage outlays for employes engaged in handling trains would be affected by an eight-hour day.

In the case of yardmen, switchmen and hostlers, who have a definite working day of ten hours or more, it is true that it would be necessary to reduce the working day arbitrarily, and the railroads would face a theoretical decrease of from 10 to 20 per cent in hours of service. Manifestly, there would be no overtime penalty payments, however, for work necessary beyond eight hours a day would be done by additional shifts.[4]

These illustrations from western operating experiences, the employes assert, are representative of operating conditions in the country as a whole. In the East the proportion of freight trains which operate at a speed less than ten miles an hour is greater than in the West, because of greater volume and density of eastern traffic, and the kind of commodities transported. In the southeastern states, the proportion of freight train mileage made on a speed basis greater than ten miles would be greater than in the West. The general average of the country as a whole would, therefore, correspond approximately to the western situation and would indicate that the financial aspects of the requests for an eight-hour working day need not cause serious apprehension. Even should an added outlay be required, this does not imply that the public would have to pay the additional cost in the form of higher freight rates.

The matter of increased passenger and freight rates is one which, in the opinion of employes, must needs be adjusted between the railroads and the public. There are two inquiries in this connection which the public has a right to make and relative to which it should be able to expect explicit and satisfactory replies. In the first place, is there any reason to believe that the prosperity which the railroads are now enjoying, will not continue? It is a well-known fact that the gross and net earnings of the railroad companies are now larger than they have ever been in their history. After the temporary breakdown at the opening of the great European conflict, the war orders for ammunition and supplies gave the first revivifying impulse to traffic. This was followed, however, by an expansion of

[4]Arbitration—Western Railroads and Brotherhoods of Locomotive Engineers and Firemen. Railroad Exhibit No. 10.

domestic trade and industry which will continue, according to the best authorities, after the present foreign war has terminated. Moreover, the unusual traffic and profits of war orders will undoubtedly remain for some time in the future. The verdict of those who conservatively pass upon such matters is that for several years to come the extraordinary profits arising from the transportation of war materials as well as the large gains springing from the activity of permanent trade and industry, will steadily continue. It is incumbent upon the railroads, therefore, to show cause why these tremendous increases in net revenue are not sufficient to cover, without an advance in freight rates, whatever cost may attach to the adoption of an eight-hour day, as well as leave a surplus available for a liberal return on old or new capital investment.

It is also a well-known fact, the employes assert, that had the financial administration of the railroads in past years been efficient and proper, the financial status of the transportation industry would now be all that could be desired. Hundreds of millions of dollars, which have been dissipated by indefensible methods in past years, would now be available. Many more millions of dollars, which each year are taken from operating revenues and disbursed as dividends and interest charges on fictitious stocks and bonds, could, it is stated, also have been used for the benefit of employes, stockholders and patrons, if the railroad companies had been properly managed in former years. As it is, many state governments have already passed legislation requiring security issues, reorganizations, and consolidations of the railroads to be passed upon by public utility commissions. Similar legislation is pending in Congress and is now being considered by a joint committee. With the general application of such legislation as well as other like proposals, there will be assurance as to the actual investment in railroad property and a more equitable distribution of earnings. Under these conditions, revenues may be adequate to meet any increased operating costs, and provide new capital without recourse to an advance in freight charges. At any rate, if the public should deem it wise to authorize advances in rates, they could have the assurance that the proceeds would be used for the purpose intended.

The employes claim that their attitude in requesting an eight-hour day is thoroughly consistent with their previous arguments

for higher rates of pay. Although they have received some wage advances, their contention is that they have by no means had a fair share in the revenue gains arising from their increased productivity. To the extent to which the railroads may find it necessary to reduce train loads in order to maintain a speed of twelve and one-half miles an hour, or an eight-hour day, it is claimed there will be earnings remaining arising from the increased work and productivity of transportation employes in the past, sufficient to compensate fully the railroads for any difference in labor costs. They request a share in past gains in productive efficiency for which they claim they have not been remunerated—a share not in actual money, but in terms of shorter hours or of improved working conditions and general well-being.

ISSUES IN THE STREET RAILWAY STRIKE IN NEW YORK CITY

By Robert W. Bruère,

New York City.

The issues in the street railway strike in New York City are so many and complex that it is impossible to define them in the limited space of an editorial article. On the one side stand the questions of trade union policy raised by the conduct of the strike by the Amalgamated Association of Street and Electric Railway Employes; on the other, the questions of business administration in relation to labor raised by the action of the owners and officers of the New York transportation companies. In addition to these general questions there are the issues raised by the creation by the companies of the "within-the-family" brotherhood and the introduction of the individual agreement as weapons against the independent organization of the employes as represented by the Amalgamated. Beyond all these are the questions raised by the wholesale introduction of strike-breakers recruited from all parts of the country to decide a local issue and the use of the police to protect these strike-breakers against the interests of strikers who are citizens of the municipality. The issue raised by the individual agreement is the one which has apparently attracted most general attention, and for this reason this agreement is given in full in the footnote.[1]

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[1]Working Agreement

1st. The Interborough Rapid Transit Company employs the undersigned for the wages and hours set forth on the annexed schedule in the Subway until the beginning of Initial Operation as defined in Subway Contract No. 3 or on the Elevated, until the beginning of operation of any part of the Railroads as defined in the Elevated Railroad Certificate and (provided the Public Service Commission shall approve when such operation shall begin) until August 31st, 1918.

2nd. The undersigned agrees to work for the Company in such positions as may be assigned to him from time to time (provided there shall be no reduction in position except for good cause) for such wages and hours for such periods.

3rd. It is further agreed that if the Company shall increase the wages or

Important as all these matters are, they are after all subsidiary to the one preëminent issue raised by the strike,—namely the right of the public to a determining voice in the adjustment of industrial disputes, especially when they involve a major public utility. For the most significant fact in this strike is that an agreement underwritten by the mayor and by the chairman of the Public Service Commission crumbled into dust under pressure of the first serious dispute that arose between the two parties at interest.

Early in August, the Amalgamated Association of Street and Electric Railway Employes demonstrated its hold upon the employes of the New York Railways Company, which operates most of the city's surface lines, by success in tying up traffic on these thoroughfares. Immediately, Mayor John Purroy Mitchel and Chairman Oscar Straus of the Public Service Commission intervened in behalf of the discommoded public, and by a series of conferences with representatives of the two sides, succeeded in obtaining the signatures of these representatives to an agreement. This agreement, bearing date of August 6, 1916, provided as follows:

1. The employes have the legal and moral right to organize, and the company pledges that they will not interfere with the employes in their exercising of these rights to organize, either by intimidation, coercion or discharge, nor shall the employes undertake to interfere with other employes in their exercising of their rights to decline to organize, either by intimidation or coercion.

2. The company will receive and treat with a committee of the employes upon any and all questions that may arise between them. This committee to select such spokesmen or advisers as they may choose to represent them, without any objection on the part of the company, and the company will in no way

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change the hours set forth on the schedule, the undersigned shall have the benefit of such increase or change notwithstanding this agreement to the contrary.

4th. If, after five years' service in any one class, for physical causes beyond the control of the undersigned, he shall be assigned to a lower position, he shall then receive at least the low rate wages on the schedule of the class from which he is transferred.

Dated New York City, 1916

INTERBOROUGH RAPID TRANSIT COMPANY.

By FRANK HEDLEY,
Vice-President & General Manager.

.....
Employe

Pass No.....

interfere with the selection of the committees of employes, it being understood that if the committee shall select to represent it the officers or other representatives of any particular organization, their appearance on behalf of the committee shall not be deemed a recognition on the part of the company of the organizations of which they are the officers or representatives.

3. That the question of wages and working conditions between the employes and the company shall be taken up by and through a committee of employes with the officials of the company on a date to be agreed upon between them—such date not to be later than the 20th day of August, 1916.

The committee and the company in conference shall attempt to reach a satisfactory settlement upon all questions of wages and working conditions, and upon such points as they may fail to reach an agreement they shall submit to a board of arbitrators—the board of arbitrators to be composed of three disinterested persons, one to be selected by the officials of the company, one to be selected by the committee representing the employes, and these two arbitrators to select the third.

Both sides to be given full opportunity to present all evidence and argument in connection with their points submitted to arbitration, and the award of the majority of the arbitrators, in writing, shall be final and binding.

It is also agreed that all disputes that may arise between the company and the employes in the future, on which they cannot mutually agree, shall be submitted to arbitration as herein provided.

4. In the interest of public safety and public service, the company wants it clearly understood that the direction and control of employes in all matters looking to efficiency in the service remains with the company and is not to be the subject of conference or arbitration, but if a dispute should arise as to whether a particular case falls within the above class, that question shall be subject to conference and arbitration as above provided for.

5. If the above is agreed to and accepted, it is further agreed that the employes shall declare off the strike and return to work immediately, in the positions they occupied prior to the time of going on strike, without prejudice.

This agreement to be underwritten by his Honor, Mayor Mitchel, and by the Honorable Oscar S. Straus, chairman of the Public Service Commission for the first district.

This is the agreement as accepted by the company, acquiesced in by the representatives of the men, ratified by the men, and underwritten by Mayor Mitchel and Chairman Straus. On August 30, Mr. Hedley, manager of the New York Railways Company and of the Interborough Company, which operates the subway and elevated lines, informed Mr. Fitzgerald, organizer of the Amalgamated, and his associates, that

as the same men governed the policies of the Interborough as governed the policies of the Railways Company, they might proceed upon the assumption that the principles and policies embodied in the Railways agreement of August 6th would be regarded as controlling in the case of the Interborough. (From the official record.)

On this same day, August 30, the Interborough Company began to circulate among its employes the WORKING AGREEMENT given in the foregoing footnote. When the men learned of this agreement, they demanded its withdrawal and cancellation by the company, on the ground that it constituted a violation of the agreement of August 6 inasmuch as

> any person who signed said (individual) agreement could not expect any higher wages than those specified in the schedule which is made part of said contract, and that if the signer took any steps to better his working conditions or obtain higher wages during the term of said agreement it would be a breach of said agreement; and that Mr. Hedley admitted that for such breach of agreement the employe so signing would be subjected to discipline.

The company refused to withdraw the individual Working Agreement from circulation among the men on the Interborough. The men on the surface lines thereupon renewed their strike without waiting to submit their case to arbitration. The New York Railways Company, jointly with the Interborough, held this to be a breach of the agreement of August 6, and declared their determination to have nothing further to do with the Amalgamated. After an interval, the Amalgamated agreed to submit the entire controversy to arbitration; but the companies asserted that the time for arbitration had passed and that they were resolved upon a war of extermination against the Amalgamated. Committees of citizens waited upon the companies; the mayor and Commissioner Straus interceded with them,—all to no purpose.

On September 12, the mayor and the Public Service Commission issued a joint statement in which they declared:

> We believe that the agreement has not been destroyed by the acts of the two parties. Though it has been violated, the moral obligation to maintain it still continues. It was deliberately made, and guaranteed by the mayor of the city of New York and the chairman of this commission. The public was also a party to this agreement. Whatever the two parties may do, they cannot deprive the public—the third party—of its rights under the agreement. Both parties asked for and received the sanction and guarantee of the city of New York and the Public Service Commission that each would perform its duty.

In the light of the fact that the agreement of August 6 is today as if it had never been written, signed and guaranteed, this statement of the two foremost representatives of the public is one of the most humiliating confessions on record of the impotence of the third party. This constitutes the paramount issue of this strike,—

and of all other strikes. The public is impotent because it is ignorant of the basis of industrial controversies. It is ignorant because it has heretofore utterly neglected the problems of labor administration and the human factors involved in the operation of public utilities. It is impotent because it has devised no method of formulating its own judgments or of making those judgments effective. The paramount issue raised by this, as by all other industrial disputes, is whether the public shall continue to remain ignorant, and impotent,—and whether it shall continue to be the victim of its own ignorance, indifference and impotence.

THE PRESENT TREND OF REAL WAGES

By I. M. Rubinow,

Executive Secretary, American Medical Association.

About two years ago the writer published a brief article under the title "The Recent Trend of Real Wages" in the *American Economic Review* for December, 1914. The article and its conclusions at that time happened to attract a good deal of attention among American economists and statisticians, and yet there was very little that was striking or unexpected either in the conclusions or in the statistical methods employed. Even an undergraduate student of economics is familiar with "the index number of the purchasing power as measured by retail price of food," published by the United States Bureau of Labor Statistics for years 1890 to 1907.

For various reasons the publication of that index number of what might be termed "real wages" was discontinued by the federal Bureau of Labor Statistics, and all that the writer had endeavored to accomplish was to bring that index up to date by combining the available data on prices and wages published by the same government bureau.

Naturally the statistical machinery available to an independent student is very much more limited. Any careful weighting of the data had to be abandoned, and perhaps the only contribution for which some credit may be claimed was in establishing the thesis that the influence of the various methods of weighting was so slight that a simple averaging could be expected to produce at least approximately accurate results. Assuming the average real wage between 1890 and 1899 to be 100, the purchasing power of weekly wages measured by retail prices of food during the years 1900 and 1912 was found to be as follows:

1900	100.2	1907	97.7
1901	96.8	1908	93.0
1902	94.3	1909	89.4
1903	97.3	1910	87.2
1904	96.0	1911	88.9
1905	98.6	1912	85.3
1906	98.0		

On a basis of these figures the writer ventured the statistical deduction that between 1907 and 1912 the purchasing power of weekly wages, or the real weekly wages, has decreased from 97.7 to 85.3, 12.4 points or 12.7 per cent. The study concluded as follows:

> With fewer children to support, with women young and old, married or unmarried, contributing to the family budget, or at least partially relieving it of a certain share of the burden, the wage workers of America were able to raise the standard of living to lead a somewhat easier life. But this does not mean a larger return for their labor. As far as the purchasing value of the wages is concerned it has probably increased slightly (though by no means as rapidly as is asserted) between 1870 and 1890, but since 1900 it has been rapidly falling. The purchasing power of wages in 1913 is not much higher than it was in 1870.
>
> And yet the increase in the productivity of labor during the last three decades, especially as measured in consumers' values, was enormous. It is not at all necessary to quote figures to prove this contention. The conclusion is inevitable that a much smaller share of the value reaches the wage worker now than did twenty or thirty years ago.

These conclusions were on the whole accepted without much controversy by American statisticians. Professor John H. Gray in his presidential address before the twenty-seventh annual meeting of the American Economic Association quoted that article in support of the following statement: "At the same time that this influx of women and children into the industries is taking place, real, as distinct from money wages, have constantly declined since 1906." Professor Walter E. Clark in his book *The Cost of Living*, Professor E. D. Durand in his presidential address before the American Statistical Association in December, 1915, Dr. B. S. Warren of the Public Health Service in his valuable study of *Health Insurance*, Professor D. H. L. Weld in his book on *Marketing of Farm Products*, Mr. William English Walling in the *Inter-collegiate Socialist* for December, 1915, *The New Review* for October, 1915, Professor W. J. Lauck in the *Locomotive Engineers' Monthly Journal*, Professors Irving Fisher, Walter Wilcox and Robert E. Chaddock in personal correspondence have all expressed their agreement with the conclusions reached, which as a matter of fact, represented no more than a statistical demonstration of the quite obvious trend of price and wage movements. It was therefore quite unexpected, and I believe on the whole, unfortunate that in a public hearing before the committee on labor of the United States House of Representatives in Washington in a discussion of social insurance this obvious

statistical deduction was made the subject of a very emphatic attack by the venerable President of the American Federation of Labor in language of which the following is fairly typical:

> The statement to which I took exception, and which I now emphasize, was a subtle blow at the life and vitals of the trade union movement and trade union activity. If, as Dr. Rubinow's charge implies, trade union work has brought about this one condition, that wages have not kept pace with the cost of living; if despite trade union activity in the past twelve years, there is 15 per cent less of purchasing power of the necessities of life, then the whole work of the trade union movement is wrong and must of necessity be a failure. So far as I am concerned I will say this, that if I believed that to be a fact I would not give my time and my life to trade union work and I would not advise any man or woman to join a trade union. If the conditions of the workers are worse than they were twelve years ago, as I say, our cause has been a failure.[1]

Is it necessary to state here that there is absolutely no justification for such interpretation of the statistical statement? It is obvious that the trade union movement, no matter how useful, cannot always claim omnipotence and the only deduction to be made from those statistical data is that the pressure of higher cost of living was so terrific that even trade union activity was unable to overcome its effect.

An effort at an accurate determination of the movement of real wages since 1912 to 1916 continues to present, especially to the private statistician, such serious difficulties that the work is not undertaken with a great deal of confidence. While the Bureau of Labor Statistics published a large amount of data on wages and prices, the methods of statistical presentation have been changed so radically that an effort to continue the old index of real wages meets various difficulties.

There is no intention to criticise here the change of these methods because they have been undertaken under such high expert advice as only Professor Wesley Mitchell of Columbia University was able to give, and therefore the change in these methods must at present be accepted. But the annual change of base and a good many other minor differences make comparisons more difficult and the results only approximately correct.

[1] Hearings before the committee on labor, United States House of Representatives, 64th Congress, First Session, on H. J. resolution 159, Commission to study social insurance and unemployment, April 6, 1916, page 151.

Moreover, there may be less need for private reconstructing indexes. In one of its recent bulletins[2] the United States Bureau of Labor Statistics has again for the first time in many years presented the index number of purchasing power of wages for recent years. Two tables appear in that bulletin, conforming in general to the old method of computing the index number of purchasing power of wages with the following three differences:

1. The comparison is limited to union wages only.
2. The purchasing power for 1907 is taken as a basis of 100 instead of the average purchasing power during 1890 to 1899, and
3. Decimal points have been omitted to avoid the appearance of greater accuracy than could be claimed for the figures.

These tables give the index of the rate of wages per hour, at full time hours per week, rate of wages per week, full time, retail prices of food and purchasing power measured by retail prices of food, of rates of wages per hour, and of rates of wages per week, full time. It is now officially shown that while the rate of wages per hour from 1907 to 1915 for union labor has increased from 100 to 114, the full time hours per week have decreased from 100 to 97, thus reducing the increase of rate of wages for a full time week from 100 to 112. In the meantime the retail prices of food have increased from 100 to 124. Thus the purchasing power of rates of wages per hour has decreased from 100 to 92, and the purchasing power of rates of wages per week has decreased from 100 to 90. This last index may be shown in detail:

PURCHASING POWER OF RATES OF WAGES PER WEEK, MEASURED BY RETAIL PRICES OF FOOD

1907	100	1911	94
1908	98	1912	90
1909	94	1913	90
1910	92	1914	89
		1915	90

This table evidently corroborates the conclusions of my earlier article.

The data above refer to organized labor only. From other publications of the same bureau some information may be obtained concerning movement of wages in various other industries. Bulletins No. 177, 178, 187 and 190 have been utilized to bring together

[2] No. 194, Page 21.

indexes of weekly earnings in the following industries: hosiery and underwear, boots and shoes, men's clothing, cotton goods manufacturing, cotton goods finishing, woollen goods manufacturing, silk goods manufacturing.

The movement of wages during the last five years is shown in the following table:

	Knit Goods	Boots and Shoes	Men's Clothing	Cotton Manufacturing	Cotton Finishing	Woolen Manufacturing	Silk	Simple Average
1910	89	92		90		92	93	91.2
1911	89	94	91	90	97	92	94	91.9
1912	93	93	93	98	99	102	97	95.1
1913	98	100	101	99	98	100	102	99.7
1914	100	100	100	100	100	100	100	100.0

I prefer at this time not to make any effort to reconstruct all the data so as to fit them in with the old index number of real wages from 1890 to 1907. This would require a great many statistical recomputations which would obscure the data as found in the official publications. A simple average of those seven industries was, however, computed and it indicated that on an assumption of 100 as the average wage in 1914, the average wage of 1910 is only 91.2, showing an increase of 8.6 per cent during the four years. During the same period union wages have increased from 104 to 111, or about 7 per cent, while the retail prices of food have increased from 113 to 125, or over 10 per cent.

No great degree of statistical accuracy should be claimed for the comparison of those three data. But it seems quite obvious from the examination of those figures, and also from the more careful examination of the great wealth of retail quotations of wages in the numerous bulletins, that there has been a further slight decline in real wages even in the last three or four years. It is possible that on the whole wages may have held their own between 1912 and 1916, as measured in purchasing power of food. What the phenomenal increase of prices during 1916 has resulted in, it is yet too early to ascertain. Both price and wage movements since the beginning of the war must be admitted as abnormal, and perhaps no general deductions of economic tendencies could be lightly drawn therefrom. But the loss of the previous decade is now

universally admitted and it is doubtful whether even the abnormally high wages of a few industries supported by war demands and even the discontinuance of competition from the flood of emigrants have enabled the wider circles of the American working class to recover any of the loss sustained during the preceding decade.

THE EFFECTS OF THE LEGAL MINIMUM WAGE FOR WOMEN

By A. N. Holcombe,

Massachusetts Minimum Wage Commission.

The first minimum wage law adopted in the United States was the Massachusetts act of 1912. In the following year eight other states adopted minimum wage laws.[1] In 1915 two more states were added to the list.[2]

The laws of these eleven states are of three types. First, in Utah and Arkansas a uniform minimum rate for experienced women is fixed in the statute itself. Lower rates are fixed for learners and apprentices. Secondly, in the other states no minimum rate is fixed by law. In seven of these states the determination of suitable minimum wages for women in different industries is entrusted to a special commission, sometimes called a minimum wage commission and sometimes called an industrial or industrial welfare commission. These commissions are charged with the duty of fixing the minimum in each trade in accordance with the needs of the employes and the financial condition of the industry. The minimum rates thus determined by them must be paid by the employers. Thirdly, there are two states, Massachusetts and Nebraska, where minimum wages are fixed by or under the direction of commissions, but where the commissions have power only to recommend the acceptance of their determinations by employers. Enforcement of the commissions' recommendations in these states is to be secured by public opinion, and the commissions are consequently authorized to make public the names of employers who follow and who do not follow their recommendations.

In Arkansas, according to the act passed in 1915, a minimum rate of $1.25 a day for experienced workers and of $1 per day for inexperienced workers was established. These rates apply to women and girls in practically all occupations except those employed in cotton factories and in the gathering or preservation of fruits and

[1] California, Colorado, Minnesota, Nebraska, Oregon, Utah, Washington and Wisconsin.

[2] Arkansas and Kansas.

perishable farm products, and apply only to establishments employing more than three such persons. The Minimum Wage Commission is also authorized to establish rates for employes of hotels, restaurants and telephone companies, and has power to raise or lower the minimum rates in specific industries where after investigation it is found that the wage established by statute is above or below the necessary cost of living. Under these provisions of the act, special rates have been established for employes of several telephone and telegraph companies, and for inexperienced workers in retail stores. Plans for the establishment of special rates for hotel and restaurant workers are under consideration by the commission. It is reported that litigation to test the constitutionality of the statute was commenced in August, 1915, and that the law was declared unconstitutional by one of the lower state courts. No decision has as yet been rendered by the Arkansas Supreme Court.

In California the law establishing an industrial welfare commission went into effect in August, 1913. It was not, however, until April, 1916, that the commission's first wage determinations went into effect. These rates apply to women employed in canneries, both piece and time workers. The time schedule requires the payment of 16 cents an hour to experienced and 13 cents an hour to inexperienced workers. Piece workers of ordinary ability are expected to make equivalent amounts. The commission is considering the establishment in the near future of rates for women employed in mercantile establishments and in the clothing trades. According to a recent statement by Mrs. Katherine P. Edson, a member of the commission and its executive officer, it is stated that:

> Not a single cannery that paid in excess of the minimum wage has lowered its wage scale, while all of the canneries which paid less than what the commission fixed as the minimum wage, have raised their pay to meet the minimum rate.

The State Wage Board of Colorado was not appointed until March, 1914, although the law establishing the board went into effect in May of the preceding year. The bill creating the board, which was practically only a two-year investigating commission, provided no adequate means or methods for the regulation of wages. The powers of this board expired on August 15, 1915. A new bill, creating a permanent commission, was passed by the legislature of 1915, but was vetoed by the governor.

A minimum wage law was passed in Kansas in 1915. Special boards have been organized to consider the establishment of minimum rates of wages and maximum hours of labor for women employed in laundries and mercantile establishments, but no wage determinations have yet been issued by the Industrial Welfare Commission.

In Massachusetts, minimum rates have been recommended for four industries, brush factories, laundries, retail stores and women's clothing factories. The recommended rates for experienced workers were 15½ cents an hour in brush factories, $8 a week in laundries, $8.50 a week in retail stores, and $8.75 a week in women's clothing factories. Lower rates were recommended for learners. The rates recommended for women's clothing factories have not yet gone into effect. Those recommended for brush factories and retail stores were generally accepted by employers, and have been in effect for two years and a half and one year respectively. The rates recommended for laundries were disregarded by employers. This caused litigation which is still pending in the state supreme court.

The Minnesota Minimum Wage Commission was established in June, 1913. In October, 1914, it issued orders providing the following minimum rates of pay for experienced women: (1) in cities of the first class (the Twin Cities), mercantile establishments, etc., $9, manufacturing establishments, etc., $8.75; (2) in cities of the second, third and fourth classes, mercantile, $8.50, manufacturing $8.25; (3) in smaller cities and towns, both mercantile and manufacturing, $8. These orders do not apply to learners and apprentices. Before these orders became effective, a temporary injunction was issued by the Ramsey County District Court restraining the commission from enforcing its orders or performing any other official acts. The case was carried before the Supreme Court of the state and argued in January, 1915. No decision has as yet been announced.

No wage determinations have yet been made by the Nebraska Minimum Wage Commission. The members of the commission were not appointed for over six months after the law went into effect and no appropriation was made for their work until 1915 when the legislature voted the sum of $500.

In Oregon, minimum wages were promptly prescribed by the

Industrial Welfare Commission for experienced and inexperienced women in all industries. The prescribed rates have recently been revised. The original rates were $8.25 per week to $40 per month for experienced workers in different industries and localities, and $6 per week for learners. The present regulations[3]

provide for a minimum weekly wage rate for experienced adult women workers, ranging from $8.25 in the smaller towns of the state to $9.25 in certain occupations in Portland. One feature of the revised orders is a provision for a rise every four months during the year in the wage scale allowed for apprentices.

Certain Oregon employers promptly instituted a test case to determine the constitutionality of the Oregon mandatory law. This case (*Stettler* v. *O'Hara*) was decided by the Oregon Supreme Court in March, 1914, in favor of the constitutionality of the law. It was then appealed to the United States Supreme Court where no decision has yet been reached.

In Utah a minimum wage of $1.25 per day for experienced adult women, 90 cents a day for adult learners and 75 cents a day for girls under 18, was fixed by law in 1913 for women and girls in all industries throughout the state. The state commissioner of labor stated in 1914[4] that the law has increased the wages of those who most needed it, that the minimum wage has not tended to become the maximum, and that 90 per cent of the employers are satisfied with the law and its enforcement.

The Industrial Welfare Commission of Wisconsin, which is intrusted with the enforcement of the minimum wage law passed in 1913, has not yet fixed any minimum rates. It is understood to be awaiting the decision of the United States Supreme Court in the Oregon minimum wage case before taking definite action.

In Washington, practically all the industries of the state have been covered by orders which provide minimum wage rates for experienced adult women of from $8.90 to $10 per week and lower rates for minors and apprentices. The lowest rate for minors is $6 per week.

The states in which the effects of the minimum wage have been most carefully studied are Oregon and Massachusetts. The United States Bureau of Labor Statistics caused an elaborate study to be

[3] *Monthly Review of the United States Bureau of Labor Statistics*, Oct., 1916, p. 484.

[4] *United States Bureau of Labor Statistics Bulletin No. 167*, pp. 75–76.

made of the effects of the minimum wage in Oregon, which was published about a year ago as Number 6, in its *Woman in Industry* series. This investigation showed, if not final results, at least certain general tendencies. The rates of pay for women as a class were found to have increased. While formerly 26 per cent of the girls under 18 received rates of less than $6 a week, after the minimum wage went into effect less than 1 per cent were paid below this rate. Furthermore, more girls under 18 years received over $6 a week after, than before the minimum wage was established. Among the experienced women, not only the proportion getting not less than the legal minimum, but also the proportion getting more than the legal minimum, was found to have increased. Employment was more regular than before, but the total number employed showed a falling off. The decrease in the number of women employes, however, was believed by the federal investigators to be largely accounted for by other factors than the establishment of a minimum wage, notably by the business depression which set in at about the time the minimum wage was established, and which had not passed at the time the federal investigation was made. The minimum wage did not cause the replacement of women by men, nor did it result in any decrease of the efficiency of those affected by the wage determinations. In other words, while the Oregon experience with the minimum wage at the time the federal investigation was made was not conclusive, it did show that some of the common objections to the minimum wage for women by law are without foundation.

In Massachusetts the minimum wage has now been in operation for more than two years in the brush industry and for one year in retail stores. After the minimum wage had been in operation in the brush industry for a year the commission made a careful investigation for the purpose of determining its effects. This investigation showed: (1) that the establishment of the minimum wage in the brush industry had been followed by a remarkable increase in the number of women employed; (2) that the employment of women at ruinously low rates had been practically stopped; (3) that the proportion of women employed at more than the prescribed minimum rate had greatly increased, and (4) that this had been accomplished without putting an unreasonable financial burden upon the industry. In short, the evidence showed that the establishment of a minimum wage had been followed by the desired results both in

the industry as a whole and in every individual establishment where the management had been willing to give it a fair trial.

Shortly after the minimum wage was put into effect in retail stores the commission began a similar investigation for the purpose of ascertaining the results in that industry. This investigation, which has just been completed,[5] shows:

1. That acceptance of its recommendations concerning the wages of women and girls employed in retail stores entailed increases of wages for a greater or less proportion of such employes in nearly all retail stores except those employing women for office work only. Altogether, 90 per cent of the sixteen thousand female employes in nearly one thousand establishments covered by the commission's investigation were employed in stores where wage increases were necessary, if the commission's recommendations were to be followed.

2. That the proprietors of the larger retail stores, with few exceptions, have accepted its recommendations and are attempting in good faith to follow them. The proprietors of the smaller stores are also generally following the commission's recommendations, although the proportion of exceptions is greater than among the proprietors of the larger stores. Altogether only 6 per cent of the women and girls employed in stores covered by the commission's investigation are now receiving less than the minimum wages recommended by the commission.

3. That on or about January 1, 1916, when the commission's recommendations became effective, the wages of nearly 40 per cent of all the women and girls employed in over nine hundred stores, from which information was obtained, were raised. In stores where wages were raised in pursuance of the commission's recommendations, the percentage of wage increases was 46 per cent, in stores where the wages previously paid were not less than the minimum rates recommended by the commission, the percentage of wage increases was 20 per cent, in stores where lower wages were previously paid and where there was no attempt to follow the commission's recommendations, the percentage of wage increases was also about 20 per cent. Altogether nearly six thousand women and girls received increases of wages, more than nine-tenths of whom were employed in stores which raised wages in pursuance of the commission's recommendations.

4. That the increases of wages amounted in a majority of cases to at least a dollar a week and in many cases to two or three

[5] Massachusetts Minimum Wage Commission, *Bulletin No. 12.* Preliminary Report on the Effect of the Minimum Wage in Massachusetts Retail Stores. Boston, 1916.

dollars or more. There were comparatively few cases in which the wages of women receiving more than the minimum rates recommended by the commission were reduced. The number of such cases, moreover, was less in proportion to the total number of employes in stores following the commission's recommendations than in those not following them.

5. That the total number of women and girls employed in those stores for which the commission obtained information covering the three years 1914, 1915 and 1916 decreased during that period by about 10 per cent. Analyzed according to occupations, the decrease was least among the saleswomen to whom the $8.50 minimum rate recommended for experienced employes most generally applied. It was greatest among the counter-cashiers, examiners, messengers, and bundlers, comprising for the most part young and inexperienced persons. As is more fully explained in the commission's report, there are several factors besides the introduction of the minimum wage to account for the decreased employment of this class of persons.

6. That despite the decrease in their numbers the total sum paid in wages to the women and girls employed in these stores was greater in 1916 than in either of the preceding years.

7. The investigations of the committee on the minimum wage of the Boston Social Union, an abstract of whose report is appended to that of the commission, show that the total earnings in 1916 of those women and girls, who are known to have lost their positions in retail stores in consequence of the introduction of the minimum wage and to have been compelled to seek other employment, will be greater than would have been the case, had they retained their positions in the retail stores at the wages they had been receiving.

8. That in the establishments which did not raise wages in pursuance of the Commission's recommendations, over 48 per cent of the female employes were still paid lower rates than those recommended by the Commission.

Upon these findings, as set forth in full in its report, the commission bases the following conclusions:

1. That most experienced women employed in retail stores in Massachusetts are now receiving not less than the recommended rates, and that most learners and apprentices are now employed under more favorable conditions and with better prospects than ever before.

2. That no such general increase in wages as has actually occurred would have taken place but for the operation of the minimum wage law.

3. That the decrease in the total number of women regularly employed in retail stores in 1916 as compared with the preceding years was mainly produced by other causes than the introduction of the minimum wage.

4. That those whose loss of employment may be ascribed to the minimum wage are now for the most part better situated than they were in their former positions.

5. That there is no tendency for the minimum wage to become a maximum.

6. That the action of those proprietors of retail stores who have accepted the commission's recommendations, has been justified by the results, as far as now known, and that unless good reasons for not so doing be shown, their example ought to be followed without further delay by all other proprietors of retail stores.

The experience with the minimum wage in the states where it has received a fair trial seems to indicate that the good results anticipated by the original advocates of the legal minimum wage for women are being secured. It is deeply to be regretted that the enforcement of the various laws has been greatly hampered by litigation. The constitutionality of the Oregon law was first challenged more than three years ago. Though the act was sustained by the Supreme Court of the state the employers appealed to the Supreme Court of the United States for a final decision. This decision should serve as a guide to the administrators of minimum wage laws not only in Oregon but in all states which have laws of the same type. Even in Massachusetts and Nebraska, where the commissions have power only to recommend the payment of the minimum rates, the courts seem disposed to await the decision of the Oregon case before determining for themselves the constitutionality of their own statutes. The Oregon case was argued before the United States Supreme Court in December, 1914. Eighteen months passed before the Court took any action, and then in June, 1916, it ordered a reargument of the case sometime after the presidential election. At the present writing the case has not yet been reargued. Pending a final decision by the Supreme Court, the efforts of the state commissions in most states to enforce the laws are seriously or entirely thwarted. To this long and unfortunate delay in deciding the constitutionality of the Oregon minimum wage law must be mainly ascribed the lack of more complete evidence of the practicability and wisdom of the legal minimum wage for women.

SOCIAL INSURANCE

By John B. Andrews,

Secretary, American Association for Labor Legislation.

Probably no human device has done more to substitute security for uncertainty in the economic affairs of our complex modern life than the device of insurance. Property is protected by insurance against fire, burglary, or loss at sea. Persons with comfortable incomes insure themselves or their dependents against the financial results of accident, ill health, or death. But wage-earners, who are largely without property and whose incomes are too small to provide for adequate insurance in a commercial company, have until recently been exposed without protection to the winds of adversity.

One of the strongest evidences of the profoundly altered attitude of society toward its members is the rapid spread of socially encouraged provision for the insurance of wage-earners against the five great hazards which continually stare them in the face: industrial accident, illness, unemployment, old age and invalidity, and death. There is hardly a civilized country whose laws do not establish protection against one or more of these risks. Because it covers the mass of the people, and because governmental action is necessary to its initiation and operation, this type of insurance has come to be generally known as "social insurance."

In the United States in the short space of seven years thirty-five of our states and territories, and the federal government for its own half-million employes, have enacted workmen's compensation legislation, which guarantees to the injured wage worker or his family financial indemnity for industrial accident without the wasteful and contentious methods of the old employers' liability system. Discussions on old age and on unemployment insurance have been frequent, and one state already has a state life insurance fund in operation; but undoubtedly the next big step in social legislation in America is health insurance.

Sickness in the United States

Six years ago, when an expert committee of the Association for Labor Legislation, composed of statisticians, actuaries, physicians

and economists, sought in a memorial to the President of the United States to answer the question, "How much sickness is there in the country?" they found themselves baffled by lack of data. The best they could do was to turn to Germany, where, under a national health insurance system, excellent records had been accumulating for more then twenty years. Upon the basis, then, of German experience, our American experts made the following estimate:

Estimate of Sickness and Its Cost among Occupied Males and Females in United States, 1910 (33,500,000)

Estimated number of cases of sickness, on the German basis of 40 per cent of the number of persons exposed to risk	13,400,000
Estimated number of days of sickness on the German basis of 8.5 days per person per annum	284,750,000
Estimated loss in wages at an average of $1.50 a day for 6/7 of the 284,750,000 days	$366,107,145
Estimated medical cost of sickness at $1 a day for 284,750,000 days	$284,750,000
Estimated economic loss at 50 cents a day for 6/7 of the 284,750,000 days	$122,035,715
Total social and economic cost of sickness per annum	$772,892,860
Estimated possible economic saving in the health of individual workers on a basis of 25 per cent reduction per annum	$193,223,215

Despite the discussion these figures produced when they were made public, they are now seen to have been very conservative. On the basis of its study for the federal Commission on Industrial Relations, of nearly 1,000,000 workers in representative occupations, the United States public health service estimates that each of this nation's 30,000,000 wage-earners loses an average of nine days annually because of sickness. This amounts, for the nation, to an annual loss of nearly 740,000 years. Everyone who has ever examined the records of our charitable societies will roundly endorse the commission's statement that "Much attention is now given to accident prevention, yet accidents cause only one-seventh as much destitution as does illness." No fewer than 3,000,000 persons, it was stated, are ill on any one day. The consequent wage loss is put at $500,000,000 a year, while the expense of medical treatment and supplies runs up to $180,000,000 in addition.

Among women the rate of sickness is higher than among men. In Rochester, N. Y., for instance, a careful survey of its industrial policyholders by the Metropolitan Life Insurance Company showed

that of each 1,000 males, aged fifteen or more, 23.3 are so ill at any one time that they are unable to work, while females of the same age similarly affected number 25.7 out of every 1,000. This means an average annual disability rate of 8.5 days for men and 9.4 days for women.

In America, as abroad, infant mortality among wage workers is excessively high. In Johnstown, Pa., the United States Children's Bureau found the infant mortality rate five times as high in the ward where the poorest paid workers lived as in the wealthiest section. In families where the father received $1,200 or more a year, or had "ample" income, the infant death rate was 84 per 1,000, but when the father received less than $10 a week or $521 a year this death rate leaped to 255.7 per 1,000. A similar study carried on in Montclair, N. J., revealed precisely the same tendency of a soaring infant death rate with a sinking of the family income.

A striking phenomenon noted as yet only in this country is the rapid decline in the expectation of life for adults. Comparison of Massachusetts statistics for 1880 with those for 1910 shows that within the present generation the expectation of life for men aged twenty-five or over has fallen six months to two and one-quarter years according to age, and that for women aged thirty-five or over it has dropped nine months to two years. This fact should be remembered in connection with the current statement that the span of life in America is increasing. It is true that babies and children have a better chance of reaching maturity than formerly; but once arrived at maturity their chances for attaining a ripe old age are unmistakably declining.

MEETING THE WAGE LOSS

Estimates of average annual wages in the United States, whether made by radicals or by conservatives, hover about the $700 mark. At the same time the minimum necessary expense of maintaining a family is generally accepted as being between $900 and $1,200. Obviously there is little margin here for tiding a family over the breadwinner's disability due to illness.

A federal study of 31,481 charity cases among both immigrants and native born in forty-three cities showed that illness of the breadwinner or of other members of the family was "the apparent cause of need" in 38.3 per cent of the cases. Thirty-seven per cent of the

families assisted by the New York City charity organization society are dependent because their wage-earners are disabled by sickness, while two-thirds to four-fifths of the expenditure of the New York association for improving the condition of the poor is for relief necessary because of illness. Individual savings, commercial health insurance, trade union benefit funds, and "establishment" relief associations inspired and controlled by employers have alike signally failed to avert the financial distress caused by working class sickness. America presents no exception to the finding of Sidney and Beatrice Webb, that "In all countries, at all ages, it is sickness to which the greatest bulk of destitution is immediately due."

INSUFFICIENCY OF MEDICAL CARE

Not only are wage-earners unable without outside assistance to provide a living for their families during a period of severe illness, but they are often unable even to meet the expense of adequate medical care. An analysis was made last year of the financial condition of 75,000 applicants to the Boston, Mass., dispensary. Of all the families with which the dispensary was in touch, 37 per cent lived on an income, including the wages of children, of $600 a year or less; 49 per cent on $700 or less; 70 per cent on $800 or less; and 83 per cent on $1,000 or less. Nevertheless, states the dispensary,

> It is a general opinion among students of wage-earners' budgets that even small families in this vicinity living on $1,000 or less should not be expected to purchase more medical service than that necessary to childbirth and acute illness in the home.

In New York City forty-six hospitals which belong to one association cared during the year 1913–1914 for 69,474 patients (57 per cent of their total) who paid nothing for their treatment. The dispensaries attached to these hospitals were attended during the same year by 603,871 patients, who made a total of 1,843,011 visits. In Greater New York as a whole the annual number of dispensary treatments runs close to 5,000,000. Yet, states the hospital association referred to, "At present only one in ten persons seriously ill or injured in this city gets treated at any hospital. For lack of proper treatment thousands lose their health and efficiency, and become a burden to the community." In the Rochester sickness survey it was found that 39 per cent of the cases of sickness had no physician in attendance.

Within the last fifteen years the number of dispensaries in this country has increased sevenfold, visiting nurses' associations have been developed in most large cities, and more careful midwifery regulations have been adopted in several states. Yet the facilities available to wage workers for the prompt diagnosis and careful treatment of illness remain shockingly inadequate.

MOVEMENT FOR HEALTH INSURANCE

Brought face to face with similar facts, Germany adopted the first nation-wide health insurance system in 1883. Other countries followed, notably Great Britain in 1911, until today universal health insurance is established in no fewer than ten of the leading continental states. In America the movement initiated by the Association for Labor Legislation in 1912 has enlisted the encouragement of the American Medical Association, the American Academy of Medicine, state medical societies, the United States public health service, several influential employers' associations, the National Association of Manufacturers, and a large number of representative trade unions. State social insurance commissions in California and Massachusetts have been studying the question from all sides, and will report to their legislatures in January, 1917. Preparations are under way for the introduction of health insurance measures in the leading industrial states.

The standard bill drafted by the American Association for Labor Legislation combines the features pronounced best by practical experience of Europe. It covers all manual workers, and all other employes receiving $100 a month or less. Insurance is made compulsory because only in this way can all those who need the assistance be reached by it. Even in Great Britain, for example, where voluntary health insurance through the "friendly societies" and the trade unions had reached an exceptional development, only 5,500,000 wage-earners were covered, whereas the compulsory national insurance act of 1911 at once applied to 13,742,000 workers, or more than twice as many. In addition to its inclusiveness, compulsory insurance reduces administrative cost to a minimum. All the expensive and tedious work of convincing a man that he needs to take out a "policy" is avoided. Persons in a given area are attached to the same fund, and this localization of membership still further increases the ease of supervision and reduces expense. Local

administration in the Leipzig sick fund costs less than 10 per cent of the total expenditure, whereas in England voluntary burial societies operating all over the kingdom spend from 37 to 48 per cent of their income for administration. A further benefit of localized membership under a compulsory system is the improved administration of medical care which it makes possible.

For the insured, the standard bill provides all necessary medical, surgical and nursing care up to twenty-six weeks a year. This is far above what is at present enjoyed by the wage-earner, who is too often compelled to accept treatment from charity or to forego it altogether. The family of the insured will also be provided with requisite medical aid, which will greatly reduce the expenditure for doctors' bills on an individualistic basis, and assure medical advice when it is needed. All necessary medicines and surgical supplies will also be furnished, up to $50 a year. The physicians' interests are carefully guarded by provisions which it is not necessary to go into here.

A cash benefit of two-thirds of wages is established, during disability, up to twenty-six weeks yearly. This amount is not likely to cultivate malingering, and on the other hand it is not so small as to cause a breakdown of family standards. Massachusetts, New York and Ohio, as well as the United States government, it will be remembered, already award 66⅔ per cent of wages in workmen's compensation cases, and percentages close to this are granted by several other states.

Important among the provisions of the bill is maternity benefit. The prohibition placed in some states upon the industrial employment of women just before or after childbirth emphasizes the desirability of granting a cash benefit during her inability to work, just as if this were caused by illness. Moreover, the annual death in the registration area of more than 10,000 mothers from causes connected with childbirth, and of 52,000 infants from diseases of early infancy —many of which are preventable—make it imperative to provide more adequate care. Maternity benefit is included in every European health insurance system.

A fourth benefit proposed is a funeral benefit of $50. This type of relief is at present probably the most urgent need among wage workers. In 1911 thirty-two industrial insurance companies in the United States had about 24,700,000 policies in force, on which they

reaped $183,500,000 in premiums. The losses paid out amounted to only a little over $50,000,000, most of which was utilized for funeral expenses. Under the health insurance plan adequate burial could easily be provided for, while the money now expended by working people for mere burial insurance would go far toward paying their share of the contribution for all the benefits enumerated.

The moneys to provide the benefits just described are to be raised by joint contributions, two-fifths by the employer, two-fifths by the employe, and one-fifth by the state. It is felt that a certain responsibility for ill health rests upon all three of these parties, and that justice no less than the purpose of bringing this responsibility home to the minds of all concerned can best be served by joint maintenance of the insurance fund. For workers receiving below $9 a week, upon whom even the two-fifths contribution would be an undue burden, the rate is progressively reduced, until at $5 a week the employe pays nothing. The total amount raised through these contributions must always be sufficient to provide the minimum benefits described; but if a fund wishes to, it may under careful supervision charge higher amounts and pay proportionately increased benefits.

For the administration of the insurance a system of local funds has been devised, each under democratic control by committees and directors chosen half and half from employers and employes. A state social insurance commission will supervise the workings of the funds.

PREVENTIVE EFFECT OF HEALTH INSURANCE

So far health insurance has been discussed only in its relief and curative aspects. But it is an axiom in the business world that no sooner is an adequate system of insurance set up than it incites efforts for the reduction of the risk against which it offers protection. Fire underwriters not only insure against fire—they inspect buildings and raise the standards of safety against conflagration. Workmen's compensation not only secures indemnity to the injured workman or his orphaned children, but it provokes a movement for "Safety First!" Large industrial concerns such as the General Electric Company and the American Locomotive Company are now proudly preventing from 30 to 60 per cent of the accidents which before the coming of compensation they accepted as "inevitable." In the same way the proponents of health insurance confidently count

on the adoption of the standard bill to launch a mighty movement for "Health First."

As has been said, employers, employes and the state are today jointly responsible for sickness. Persistent monthly levies upon their several pocketbooks to meet the expenses of the prescribed benefits should rouse a campaign for industrial and social sanitation such as no army of factory and housing inspectors could ever hope to. Under its influence we may expect to see industrial poisons controlled, the work-day and speeding-up brought within physiological limits, habits of personal hygiene remodelled, and preventive medicine flourish, beyond the highest hopes of an older generation of progressive thinkers.

THE AMERICAN OUTLOOK

The California and the Massachusetts legislative commissions which are now studying health insurance are also instructed to go into other fields of social protection of wage-earners, such as insurance against unemployment and old age. A resolution for a similar commission under congressional auspices was the subject last April of intensely interesting hearings before the house committee on labor. Numerous state and national political platforms pronounce in favor of various sections of the program, and there seems to be little room for doubt that individualistic America is at last about to enter on a comprehensive campaign for the reduction of some of our worst industrial evils through the method of social insurance with its effective coöperative pressure.

WELFARE SERVICE FOR EMPLOYES

By Alexander Fleisher, Ph.D.,
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Within the last fifty years, the development of new industries and the expansion of old ones have necessitated concentration into larger industrial units. The small factory and workshop, the individual proprietor and his few employes, are becoming less frequent components of modern business. With this increase in the number of workers and the amount of capital under one management, a development that has called for leaders of constructive initiative, has come a change in the conditions surrounding the worker.

This change in working conditions has been of two kinds,—that forced upon the employer and that voluntarily granted by him. The first grouping comprises those changes brought about through legislation,—such as laws limiting the hours of labor, those providing for the sanitation of factories, for compensation for industrial accidents, —and those brought about by employes themselves through strikes and through arbitration and conciliation.

Our immediate concern has to do with the second grouping, those changes voluntarily granted by the employer. Such efforts on the part of some employers to improve the conditions of their employes in the workshop and in their homes have been known, no single term being uniformly accepted, as industrial betterment, welfare work, and service for employes. The range of the activities and the fact that the field is not fixed have made simple definition difficult. There is little uniformity in the efforts and plans of the employers who have undertaken this work. Because of the fundamental consideration that the work be done voluntarily, the field is constantly changing. If the service given by some employers is made statutory and all employers within the jurisdiction of the legislature are compelled to furnish it, in such states it can no longer be considered welfare work. This is the case, for example, in compensation for industrial accidents, formerly given voluntarily by some concerns, now compulsory in many states through a workmen's compensation law. Moreover, it must be in addition to, and

not a substitute for, such wages, hours of labor, and working conditions as are prevalent in the community in which it is undertaken. Welfare work may therefore be defined as that service given by employers to their employes, beyond the requirements imposed by law or forced by employes, and in addition to the conditions of employment prevalent in their community.

WELFARE WORK THAT IS BEING DONE

Although welfare work is by no means a new thing, it has had its greatest development within the past few years. It has unquestionably existed wherever an employer was particularly farsighted or unusually interested in the well-being of his employes. We find records of special provision and care in some of the old apprenticeship contracts and in the work of Robert Owen at New Lanark, to quote only two examples. But welfare work on a large scale, even at the present day, is spreading but slowly to include those engaged in agriculture and domestic service. It has been extended principally to those employed in transportation and in manufacturing and mercantile establishments, and, in spite of its recent growth, it is as yet affecting only a comparatively small percentage of these workers. But the fact that it is spreading under the guidance of acknowledged industrial leaders indicates that it is becoming an integral part of modern industry.

The welfare activities undertaken by employers are varied. No one employer has attempted all of them. Some have gone far beyond the requirements of the law in providing sanitary factories; others have extended their interest to include the housing of their employes. Some have emphasized the need of safe workrooms; again others have put stress upon safe workers. The development has been sporadic. There has been slight uniformity either according to industry or locality. Certain employers have done intensive welfare work. For instance, with the health of the employe as their principal interest, they have provided medical care, with sanatorium treatment and various kinds of clinics. Other employers have done extensive work. One industry, for example, which has developed its own industrial community, includes the housing, recreation and education, not only of its employes but of their families in its scope of activities.

Four problems of prime importance,—the workplace, vacations,

wage-payments, and employment and discharge,—usually are given first consideration by employers. With the aid of modern engineering knowledge, attention is being given, in erecting new buildings and remodeling old ones, to facilities for light, heat, ventilation and protection from fire and from dangerous machinery. In the matter of light, for example, the placing of the machine is determined by the location at which the operator will receive the maximum natural light without injury to his sight. Again, the heating of the workroom is determined by that temperature which assures the maximum energy of the worker.

An increasing number of employers are beginning to recognize the importance of vacation periods. In many manufacturing establishments the period of stock-taking and repair is made a compulsory vacation for the majority of the employes. Vacations with pay are becoming more common, although, as a general practice, this advantage has been extended only to office employes. In some industries provision is made for regular rest periods during working hours.

Some fundamental improvements have been made in the matter of wage-payments. The cash payment is replacing the check, a change which does away with the petty graft that accompanies the cashing of the check. The frequency of payment has been arranged to fit the current needs of the worker. Pay-day has been selected with a view to encouraging saving.

A great deal has been done by some employers to simplify, for the worker, the problems of employment and discharge. One step has been to exercise greater care in choosing employes. The object is to keep persons from entering an industry for which they may not be physically or mentally qualified. Where this care in selection is accompanied by a physical examination, the health of those already employed is also protected. Consideration is given to the aptitude of the applicant in order to assure him work that will be congenial. The power of discharge is being taken out of the hands of the individual foreman and centralized. Thus unfriendliness on the part of a foreman, or the inability of two workers in the same department to agree, need no longer be cause for loss of position. Adjustment of differences or the shifting of the troublesome worker to another department is a more far-sighted solution of the difficulty.

In addition to these activities, employers have concerned them-

selves with conditions in their employes' lives. It is impossible in so short a statement as this, to go into detail in regard to the plans in force in this type of welfare work. The following summary will give, perhaps, some idea of the extent of these activities:

1—Medical Work (a) Preventive: (1) Medical Examinations (on entrance and annual)
(2) Rest Rooms
(3) Washing and Bathing Facilities
(4) Home Nursing
(5) Lunch Rooms

(b) Curative (1) Dispensaries and Hospitals
(2) Special Clinics (Optical, Dental, etc.)
(3) Tuberculosis Care

2—Savings and Insurance: (a) Loans—(1) Remedial
(2) Building
(b) Insurance—(1) Sickness
(2) Life
(3) Old Age
(c) Profit Sharing
(d) Savings Plans

3—Recreational Activities: (a) Clubs and Association
(b) Entertainments, Concerts, etc.

4—Education of Workers: (a) Training for Jobs
(b) Training in Jobs
(c) Training in Citizenship
(d) Promotion and Records

5—Care outside of Working Hours: (a) Housing
(b) Recreation
(c) Care of Families

In this group the prevailing interest, and consequently the present greatest development, seems to be in medical care for employes. In the growth of welfare activities in an institution doing a wide variety of welfare work, this has usually been the starting point; other efforts have followed. Should a general plan of health insurance develop, it seems probable that this will be even more generally true.

REASONS FOR WELFARE WORK

There are a number of plausible reasons to offer for the undertaking of welfare work by employers. Some have been offered by the friends of welfare work, others by those opposed to it. It is

hardly likely that the interest of any employer in welfare work can be traced to any one reason alone.

The pride of the individual owner in the plant that he controls and his personal interest in his employes play an important part in the beginning of welfare work. This is especially true in communities controlled, in large measure, by a single industrial organization.

A more important cause, and one that we like to believe is true of welfare activities now beginning, is the development of social vision among owners and managers. It is the worker's present labor that is being exchanged for wages; not his future earning power. When President Wilson, during the recent railroad controversy, stated that labor is more than a commodity because a man's labor is part of his life, he put this conviction into words.

A reason of some weight that can be given as one of the causes of welfare activities is that industry has begun to appreciate the importance of the human factor in production. This has been a result of the modern need of efficient management. Machines alone do not do the work. The loyalty and interest of a stable labor force are essential to the securing of maximum production in large quantities. Welfare work emphasizes the human element in industry and does away with the concept of men as machines. It wins the loyalty and interest of the workers. Among progressive organizations this has caused an increasing consideration of welfare work. In industrial centers, during times of prosperity, there is competition for high-grade workers. It seems likely that welfare activities attach employes to their plant and help attract new workers. In this connection it may be of interest to refer to an advertisement that appeared recently in the newspapers of New York City, asking the services of a hundred workers, and placing all emphasis upon the advantage offered in cheerful and sanitary working conditions, rest rooms and lunch-room facilities, with extras at cost.

It has, in fact, been the contention of labor leaders that employers begin welfare activities for a stronger reason than that they think it pays. They claim that employers use welfare work as a club against employes' organizations. Some support was given to this view in the recent railway struggle when a few officials urged their employes to refrain from striking, since by so doing they would sacrifice all rights to the savings and pension plans of the company.

However, it is very doubtful that the inception of welfare work in any industry was done solely with the desire to destroy or forestall union activity.

It has likewise been stated by those who are unfriendly to welfare activities that it has been given as a substitute for wages. Here again it is doubtful whether the initial object was to keep wages low. Welfare activities are not inexpensive undertakings. The wages paid by organizations doing welfare work usually bear comparison with others in the same field of industry.

Another reason for the development of this service for employes by organizations like public service corporations and others supervised by public bodies may be to secure the support of the public.

RESULTS OF WELFARE WORK

What has welfare work accomplished? Has it benefited industry, the worker, and the community? Undoubtedly, it has gratified the pride of many an owner in his establishemnt. And, too, where social vision may have been at the root of much welfare activity, welfare work has more likely developed the social point of view in employers who began these activities for other reasons.

Industry, however, is seeking more tangible results from its welfare work than this. Unfortunately, at this time, it has not produced comparable figures of increased production or reduced costs. Individual instances there are where a discriminating choice of employes, coupled with the care of those employed, has resulted in an increase in output, but there has been no analysis of the results of a large number of those organizations which have undertaken welfare work. In spite of this lack of figures, the pioneers of welfare work have faith in its usefulness. They claim that it justifies its cost when it stabilizes the labor force. Absence from any cause,—be it sickness, accident, lack of interest,—is expensive. A little dispensary care may prevent an illness; glasses for an operator may eliminate his spoiled work, and so on. Employers claim also that welfare work pays when it has awakened the interest of the employe in his work.

Efforts to arouse the worker's interest have proved of great benefit to the employe himself. Working conditions have been improved; efforts are made to eliminate preventable accidents and sickness; coöperative provision is made for these contingencies

when they occur. Worry over the future is removed by the reduction of the fear of incapacity, and of loss of position.

The community requires two things, maximum production and healthy, contented workers. Welfare work is based upon the supposition that these two go hand in hand. It will be of value to the community as it develops both. As yet, except in isolated instances, welfare work has been too limited to warrant the statement that it affects the community appreciably. But any efforts of this kind seem of community value since they set a higher standard for industry, and lead the community to raise the minimum set by law.

THE FUTURE OF WELFARE WORK

Although welfare work has been of value to employers, to employes, and to the community, it must be widely extended if it is to play an important part in the development of American industry. A much larger percentage of workers must be affected, not necessarily by all existing forms of welfare work but by such kinds as prove to be of first importance. Even in those organizations which are already interested in welfare work, there is room for development in these activities. Welfare work is still too new to have been perfected by any organization.

If the standards of industry for its workers are to advance beyond the minimum standards fixed by law, two developments are essential. There must be analyses of the results of welfare work so that it may be apparent to doubting employers that welfare work pays. There must be a democratizing of these activities in order to overcome the hostility and criticism of the workers.

Welfare work has passed through its first stage, that of experimentation. The second period, one of interpretation and evolution, has been reached. The future of welfare work depends upon the results of this scrutiny. If welfare work is shown to be of value, if it can be co-related to successful management, it will enter into its third period, that of extension and expansion.

More important, perhaps, is the problem of making welfare work democratic. At present, most of this work is controlled by the employers who have interested themselves in it. This has called forth the criticism that employes need a share in the control of these activities and partial responsibility for their management. Experiments in this direction are already being

made, especially in mutual benefit associations. In these the employer frequently assists in the formation of the organization, makes contributions to its funds and makes suggestions for its guidance. Welfare work so managed is training in the fundamentals of democracy,—coöperative activity and mutual responsibility.

Welfare activities must not be utilized to thwart the aims and purposes of organizations of employes. Should this be the case, welfare work would rightly merit the hostility of labor leaders to which it is now occasionally subjected. Again, improved working conditions are never a substitute for reasonable hours or decent wages. Any other premise would at once eliminate welfare work as a proper activity of industry.

Welfare work has had a remarkably rapid development. It has done much to improve the conditions of labor for many workers; through it legal minimum standards have been raised. It must now face and solve a number of serious problems if it is to continue to grow. It is to be hoped that it can do so because the humanizing of industry for which it stands is one of the progressive developments in the present period of social unrest.

BETTER LIVING CONDITIONS FOR EMPLOYES AND THEIR RELATION TO STABILITY IN EMPLOYMENT

By John Ihlder,
Secretary, Philadelphia Housing Commission.

The keen and rapidly growing interest that employers today take in the improvement of living conditions for employes probably is due chiefly to two causes: first, an awakened social conscience, and second, and largely due to the first, a more intelligent and far-seeing selfishness. As in any great social change there are, of course, also many minor contributing causes, some of immediate or emotional appeal. There is no question, for instance, that some of the most recent housing operations by industrial concerns are due to a scarcity of labor and an inability to get or retain laborers unless good dwellings are provided for them and their families. This is particularly true of the rapidly expanded munitions plants. But their example has had a powerful influence upon other employers, not only as an example but as being the only means of successful competition in the labor market. With this has gone the emotional appeal of Americanization.

So evident are these latter, and as I believe, minor causes, that, to many persons, even including some of the employers who are building houses, they seem the major causes. And so at least the second is if stripped of its immediate and temporary appeal and properly related to the two great major causes that for years before the outbreak of the European War had been slowly changing the employer's attitude of indifference toward conditions outside his factory walls.

This attitude of indifference, in America at least, was not the original attitude. History does not exactly repeat itself, but it does seem to work in an ascending spiral, bringing us again to situations analogous to those through which we have passed. When America left the age of homespun and entered upon the industrial era it had before it the horrible example of England, pioneer of industrialism. Among those who founded the first textile mills of New England were men who had seen with their own eyes not only

the moral and physical havoc wrought upon transplanted country people in the English industrial towns, but also the first inspiring attempt of Robert Owen to work out a better system. Reinforcing this lesson was the difficulty of securing factory employes in America unless they were assured of good living conditions. For practically the only source of factory labor then was the farm.

Another interesting analogy between these beginnings of American industry and the present is that America then as now was greatly influenced by a general European War. The embargo of 1807 had cut off the importation of textiles. Its repeal and the enactment of the non-intercourse act in 1809, which still shut England and France from our markets, was almost equally effective in its encouragement of home manufacture. Before the end of the War of 1812, American industry was firmly established.

The change that these years brought about is indicated in a report made in 1810 by Albert Gallatin, Secretary of the Treasury, "that about two thirds of the clothing, including hosiery, and of the house and table linen worn and used by the inhabitants of the United States who do not reside in cities, is the product of family manufactures." Meanwhile, within two years, the number of spindles in cotton mills increased from 8,000 to 80,000, and shoe, hat and other factories grew in numbers and in size. Such was already the sequence of the cotton mill established at the falls of the Pawtucket in 1790. No wonder that Tench Coxe in his report (1814) prefaced his statistical tables of American manufactures with a panegyric. "These wonderful machines," he declaims, "working as if they were animated beings, endowed with all the talents of their inventors, laboring with organs that never tire, and subject to no expense of food, or bed, or raiment, or dwelling, may be justly considered as equivalent to an immense body of manufacturing recruits suddenly enlisted in the service of the country."

This enthusiasm is undimmed by any premonitions. And at the time there was little ground for premonitions. The growth of the new industries meant no huddling of low paid workers in already overcrowded cities. The earlier mills depended upon water-power, so their influence was against rather than toward the concentration of population in the cities. The first mill, though built by Providence capital, was not in Providence but some distance away at the falls of the Pawtucket. Its Rhode Island successors were scattered

along the streams that empty into Narragansett bay. In Massachusetts, early industry had the same decentralizing influence. Though it contributed to the wealth of the old commercial cities, it did not bring in its thousands of workers.

Because the primary need of the new mills was water-power, they were established in the open country. Because there were no houses for the employes, the building and management of mill houses was an essential part of the enterprise. And because the only available supply of labor was the Yankee farmer and especially the Yankee farmer's daughter, the houses were well built and the management above serious criticism—except perhaps for its strictness. Especially over the large boarding houses provided for their girl operatives did the mill managers exercise an oversight that was really paternal. They were most careful in the selection of housekeepers who were to stand *in loco parentis.* They saw to it that the houses were well kept, that the food was good. They made and enforced rules of conduct. Not only must the girls be in at a certain hour in the evening, but they must attend church on Sunday.

The family dwellings were not so strictly supervised, but they were well built and well maintained. Some of the first village mill houses are still occupied by mill workers and are still excellent dwellings, the chief criticism that may be made of them being their lack of modern sanitary equipment and, perhaps, a lack of sufficient window space in attic bedrooms.

But water-power as then developed was unreliable. Coal came to be, and still is in some of the oldest mills, a supplementary source of power. Then mills were built which depended upon coal alone. These new mills were no longer scattered along the valleys but were grouped at transportation points. Some of the first mill villages still remain villages, but others have grown into cities: Pawtucket, Lowell, Lawrence. Others have disappeared, their strength gone to swell that of some larger community. So industry brought not only its wealth but its workers to the cities, or by concentrating developed cities where only villages had been before.

With this change came what virtually amounted to a transformation in the living conditions of the mill workers. In the old days there had been a continuance of the friendly, neighborly relation between the employer and the employe that marked the preceding era of the small shop. In the early days of Lowell mill girls

visited the family of the manager. The employes had organizations designed to advance them in their work, like the Middlesex Mechanics' Association, and the girls had reading clubs. Those of Lowell even wrote and published a magazine from 1840 to 1849. This was, in some ways, the golden age of American industry, an age in which employer and employe had a common heritage, had standards which, if not identical, were at least like enough so that each could understand the other's. Wages were comparatively high. The girls, who formed the great majority of the operatives, usually came to the mills for a few years only, lived, while there, under good conditions, and then returned to their farms. The men looked forward to advancement.

But when villages changed to cities all else changed. Houses were built by others than the companies. First to feel the effect were the boarding houses. Girls who resented the strict supervision of the boarding housekeepers moved into private quarters. To take their places outsiders were admitted. Then the housekeepers complained that they could make no profit, so two or three houses were combined under one management and boarders who lodged elsewhere were admitted to the dining-room. Discipline necessarily suffered and finally the mill managements closed most of their boarding houses.

With the family dwellings a similar but less pronounced change took place. The desire for greater independence led many men to rent or buy houses erected by the speculative builder, even though the cost was much greater than that of the mill houses. So great did this defection become that some of the mills were forced to take as tenants families who had no connection with the industry. Others converted their dwellings into store houses. Others sold. Almost immediately rents went up, doubled and trebled. For the mill houses had not been, and usually are not now, operated on a profit-making basis.

While this was going on a new element came into the life of the industrial communities and hastened the change. Though Coxe in his panegyric had proclaimed that the new machinery which was taking the place of the old hand looms might be considered as equivalent to an immense body of manufacturing recruits, there had been difficulty from the beginning in securing enough workers to tend this new machinery. One of the chief concerns of the

earlier manufacturers had been to prove to the New England country girl that factory life would not lower her in her self respect or in the respect of others. So the coming of immigrants was hailed. The first of these were English and Scotch. Then came the Irish, whose numbers were swelled by the great famine in the middle of the century. After them came the French Canadians and, more recently, the peoples from southern and eastern Europe and from Asia.

Each of these groups of aliens has more or less completely pushed its predecessor out of the lower paid and less skilled positions. Coinciding as their coming did with the weakening of the mill house system and with the concentration of industries, it has aided in the transformation of the older industrial communities of the East and has been a potent factor in preventing the development of similar communities in the newer parts of the country. Even with the English operatives there was no longer a feeling of a common heritage or common traditions between employer and employed. With the coming of the Irish, with their lower standards of living, their untidy shacks and hovels, the gulf widened. And when to the Irish there succeeded the Latins, Slavs and Asiatics, the gulf became seemingly impassable. Then the theory that the employer has no concern in the living conditions of his employes gained credence. Then developed the Lawrence, the Lowell, the Pittsburgh, the South Chicago that we know today.

Coming as they did when economic forces had already weakened the old human relationship between employer and employe, these peoples of different standards, of different traditions, of different tongues, confirmed an inclination on the employer's part to shake off a responsibility that had ceased to give satisfaction and had grown irksome. For it must be remembered that the owners of even the earlier mills were often not residents of the mill villages. The founder of the first mill, at Pawtucket, lived in Providence, not very far away but still in a different environment. The founders of Lowell, present owners of the great mills at Lowell and Lawrence, lived in Boston. While their employes were Americans there was a bond that bridged distance. When their employes became aliens the bond disappeared.

Such generalizations are, of course, subject to exceptions. As many of the villages did not grow to be cities, so many of the mill

owners did and do live in or near the village or the city where their wealth is produced. When this is true in a village, living conditions are likely to be better because of it, though even then there remains the gulf between native and alien. In the cities the presence of the employer has been of less effect. There his responsibility has been more obscured. It is even more than a question whether, during the past generation, his active intervention would not have been resented. The antagonism between labor and capital, the development of the stock company, the desire for independence on the worker's part, the lack of desire for responsibility on the part of the employer or manager, the prospect of gain for the land owner and the speculative builder, these among other motives tended to make him set the boundary of his interest at the mill gates.

But facts are stronger than theories or inclinations. Because of theories and inclinations slums have spread through our cities; new industrial communities have become not only objects of scorn, but of deep anxiety. Plainly the employer's concern for the employe cannot cease at the gates of the mill but must follow him home. Had the immigrant of foreign tongue arrived earlier, before the mill house system had begun to break down, before the industrial city had appeared, had he come in smaller numbers so that his value would have been greater and so that he might have been absorbed into existing communities instead of establishing new ones of his own, our industrial history might have been quite different. Whether, ultimately, it would have been better is another question, for the old system was paternalistic to an extreme degree, and had the Latin and the Slav been subjected to it at the time of its greatest strength the effect might have been lasting.

Today, faced with the fact that a *laissez faire* policy is, in the long run, unworkable, we have also the experience that paternalism is not workable. This is important because the first instinct of those who have power, when inspired to use that power for the benefit of others, is to use it paternalistically. Pullman came half a century after the New England pioneers. And he has his successors today. We must find another way. To be sure there have endured in New England mill villages, founded in the early days of American industry, that still maintain a paternalistic system. There are even neighboring villages of comparatively recent origin that have taken up the tradition. But their owners seldom speak of

them with enthusiasm. Their usual statement is that only because of force of circumstances do they own and manage dwellings. Meanwhile the proprietors of other industries, finding their old quarters within a city cramped and unsuited to present needs, are moving to the outskirts or to small towns and villages. Often with them one motive has been the conditions under which their employes were forced to live. The owners of still other industries find that, because of the growth of manufacturing enterprises, there are not enough dwellings in the city for the employes of all.

So, for one cause or another, the question has again forced itself upon the employer's attention as it had not since the beginning of the past century. Better living conditions for employes must be provided. But how it is to be done is still far from settled. Some of the new communities are but unimaginative duplicates of those which demonstrated their unworkableness nearly a hundred years ago. Others, however, are experiments, more or less cautious, in newer methods. The most common of these is for the company to build houses and sell them on easy terms to its employes. Yet experience has shown that this is but a temporary solution of the problem. Another is the organization of a subsidiary company which buys, builds, sells and rents. Proposed, but not yet carried to completion, are schemes of a coöperative character.

So we are today in an experimental stage. We are faced by the fact that *laissez faire* will not do. We have had experience which teaches us that paternalism will not endure and that its end is bitterness. All we know is that it is to the benefit of the community and to the direct and continuing profit of industry that employes be well housed, that they live under good conditions. Even on this we have not, for America, scientific proof. The proof we have is that for more than a century some firms have continued to provide dwellings for their employes, though they would gladly be quit of the work and the responsibility; that other employers are beginning to do the same thing, though they undertake the enterprise with reluctance; that still other employers in seeking new sites for their plants, make as one of their conditions that the neighborhood of the new site provide good housing conditions for their workers.

Yet when one seeks facts from these men he finds either that they have no facts, have acted merely from business sense and the

untabulated lessons of experience, or that they are reluctant to disclose the facts. As one of the motives of some employers in providing housing is to secure a greater degree of control over labor, the reluctance in such cases to disclose facts is understandable. Moreover, there is today no complete or even fairly complete list of American firms that house and aid in housing their employes. In 1904 the Federal Bureau of Labor (as it was then) published a report on *The Housing of Working People in the United States By Employers*. It listed sixteen companies and said, "It has not been possible to ascertain that other establishments in the United States have been engaged to any great extent in similar work, although every effort was made to cover the field as thoroughly as possible." This list was inadequate even for its time. Since then other lists have been published, each adding to the number of firms. And in nearly every case firms are listed for the first time that had been engaged in this work for many years. The latest list contains seventy names, one of them that of the United States Steel Corporation, which alone controls several towns.

This inability to secure even a list indicates how isolated each experiment has been. Those in close proximity to each other doubtless have taught each other, though usually what they have taught has been learned by rote rather than assimilated, for there is a likeness about neighboring industrial communities that is disheartening. But of one thing their managers are all convinced, though the figures to prove it are not available: good housing lessens the number of strikes and causes a marked decrease in the labor turnover. That is the business end. It is the immediate consideration. Whether good housing decreases the amount of sickness they do not know. They have not thought much about it. That it makes the men more contented they believe.

At the present time the Department of Labor is making another investigation of the housing of employes. Perhaps its report will contain the data we need to lift the question from one of moral certainty to one of demonstrated fact.

IMMIGRATION AND AMERICAN LABOR

By Harris Weinstock,
State Market Director of California.

Most of us are opposed to all monopolies except our own. The officials of organized labor, being a part of us, can therefore hardly be blamed for being opposed to the encouragement of immigration. These officials feel exactly as merchants and professional men would feel if they were asked to help to increase the number of their competitors, and to that degree to invite decreased earnings.

The natural feeling on the part of organized labor officials is that a large influx of immigrants brings lowered wages and more hands to do the work, and thus less work for each pair of hands to do. When hard times come, they claim that these conditions simply aggravate the problem of unemployment.

The officials of organized labor are the leading proponents in the claim that immigration has largely been responsible for the existing state of industrial unrest; that it has been the largest single factor in preventing the wage scale from rising as rapidly as food prices; that it has done much to prevent the development of better relations between employers and employes; that it has greatly hampered the formation of trade unions and has increased the problem of securing responsible organizations.

I said that the officials of organized labor are opposed to immigration. No man knows what is the attitude on this question on the part of the rank and file of the three million trade unionists, since to my knowledge there has never been a trade union referendum taken to learn their attitude. It is quite likely that if such referendum were taken it would be found that the great body of trade unionists, many of whom are immigrants or the immediate descendants of immigrants, would favor giving the same opportunities for betterment to their European kith and kin that they have been permitted to enjoy.

What the worker in this country needs is the widest opportunity for employment and the greatest demand for the output of his handiwork.

Imagine the population of this nation reduced from one hundred million to say fifty million. It must be plain that under such circumstances the home consumption for the output of American labor would be cut in half and opportunities for employment on the part of the remaining 50 per cent of the population would be reduced accordingly.

On the other hand, imagine the population of the nation in due course doubled. This would double the home demand for labor's output. The increased output would lessen cost of production and thus tend to widen our world markets.

A great cry over the scarcity of labor comes from the farmer, more especially of the West. This very harvest season has seen a call for harvest hands at offers of wages almost prohibitory to the farmer, and yet the farm labor demand was not supplied. Let this condition go on and in the near future farming would become so unprofitable as to cut down the acreage under cultivation, not only because of the scarcity of new labor, but also because much of the present farm labor would be lured to the cities on account of the higher wages offered and the greater city attractions. This in turn would spell yet higher costs for food, putting a still greater burden on the consumer.

The European War has revolutionized world conditions. When it shall have been brought to an end, Europe will find herself poor indeed.

The world's greatest asset is its men. This most valuable of all assets is being steadily decimated by being killed off and crippled in Europe by the hundreds of thousands. When peace shall have been restored, the nations will find themselves handicapped not only by the loss of millions of able-bodied workers carried off by the bullet and by disease, but also by other millions of men who through loss of limb and of productive power will have become burdens.

There will be the greatest scarcity of able-bodied men to carry on the great work of restoring European industry and the ravages of war.

It is plain to foresee that the governments of Europe must establish conditions that will conserve for themselves what remains of their brawn and muscle. Every possible step will most likely be taken to put a ban upon emigration of the able-bodied, and

anyone who will encourage such emigration will be regarded as an enemy to the country and doubtless treated as such.

Meanwhile, while the warring countries of Europe are impoverishing themselves in men and in money, the United States is waxing rich as never before in its history. Its wealth will keep on growing to proportions never dreamed of by the wildest visionary. This vastly increased wealth must be profitably employed and can best be profitably employed by the development of our many yet undeveloped natural resources.

How are these great resources to be developed without an adequate labor supply? How are we to build our canals, our reservoirs and our railways? How are we to develop our mines, cut down our forests, build our ships, colonize our lands and conduct the potential great industrial enterprises now in sight, without added supply of brawn and muscle? Unless all this is done, the opportunities for still greater betterment on the part of the labor now with us are minimized.

We may deplore the fact, but the fact nevertheless remains, that our American-born workers look with more or less disdain upon the handling of the pick and shovel. Whatever the causes may be, they do not and will not perform the unavoidable tasks inseparable from the development of great natural resources by being "hewers of wood and drawers of water."

Imagine how impossible it would have been, for example, to build the Panama Canal within even a lifetime, if none but American citizens were to have been employed as common laborers. Had there not been available a supply of Jamaican negroes, Spanish, Mexican and other common labor, the completion of the Canal in all likelihood would have been postponed for a decade or more, to the loss of the entire world. As it was, remunerative employment for several years was afforded thousands of American citizens during the construction of the Canal as foremen, as engineers, and in all the positions of trust and responsibility.

Another problem affected by immigration is that of domestic service. Cut off the supply of house servants by restricting immigration and you further aggravate, more especially in the West, the great existing problem of securing domestic help. Already the cry of the American housewife has gone abroad that the supply is entirely inadequate to meet the demand. The lack of efficient

servants and the great increase in their wage have caused a famine in this line of activity. Again the fact remains that for social and other reasons American girls will not, as a rule, enter domestic service. The shorter hours, the alleged higher social standing, the greater freedom offered by the shop, the store and the office are decimating the ranks from which domestics were formerly recruited. This change in conditions is in the nature of a menace to the American home.

Untold thousands of salaried men and small tradesmen who could formerly afford to employ one or more domestic servants find that these have become luxuries beyond their means. The home is therefore in thousands of instances being abandoned all over the land for the boarding-house or the hotel. Children, formerly reared in private, surrounded by proper home influences, are now destined to be reared in cheap hotels or boarding-houses, with all their consequent ills on childhood. Conditions such as these must in time cause "our new graves to become more numerous than our cradles." The only recruiting ground for domestic help remains in Europe.

Minimize immigration and you still further aggravate the existing problem of domestic service.

There is today throughout industrial centers a labor famine, caused partly by the cessation of immigration and partly due to many able-bodied men of foreign birth leaving the United States to fight the battles of their native land. This labor famine is limiting the possibilities of industrial and agricultural development and is simply a forecast of what would follow a still further limitation of immigration. The unprecedented industrial and agricultural expansion which has taken place in this country in recent decades is primarily due to immigration. Without it, development along such lines would long since have ceased.

The possibilities in all directions in this country are as yet limitless. We can better appreciate this when we realize that the State of Texas with England's density of population could alone accommodate the people of the entire United States.

Every able-bodied male or female producer, literate or illiterate, that can be brought to this country with sound body and good character is an added asset.

It has been pointed out that a first class black slave was worth

before the Civil War, $1,500. How much more then should a healthy, able-bodied, free, white man be worth to the country?

It is true that at times our congested centers are seemingly overloaded with labor. A goodly percentage of this overload will be found to be among seasonal workers, temporarily out of employment because of climatic conditions, as well as the disabled, the incompetent, the unwilling, or the victims of drink, drugs or disease. These conditions could in a measure be minimized if we were to follow the plan pursued by the Argentine Republic and other South American countries, which furnish free transportation within their borders to new arrivals in order to minimize labor congestion.

It is not a question so much of giving population across the sea so large a place in our regard and in our hospitality, as it is a question of seeking the welfare and development of our own nation, and all its wonderful resources.

We are told that immigration tends to beat down wages; but the fact remains that wages have advanced more rapidly and hours of labor have been shortened more during the periods of our greatest European immigration than in any previous period in our industrial history.

It has been pointed out that

> eighty-five per cent of all labor in the slaughtering and packing industries is done by alien laborers. They mine seven-tenths of our bituminous coal. They do 78 per cent of the work in the woolen mills, nine-tenths of all the labor in the cotton mills, and make nineteen-twentieths of all the clothing. Immigrants make more than half the shoes in the country. They turn out four-fifths of our furniture, half the tobacco and cigars and nearly all of our sugar. In the iron and steel industries, immigrants share all the risks.

The workman at one time looked upon the invention of every labor-saving device as a menace and a competitor likely to rob him of his job. Time has shown that, instead of robbing men of labor, these devices have created untold new avenues of labor. The lessened cost of production made possible by labor-saving devices has greatly increased consumption and thus in turn tremendously increased the demand for labor.

The immigrant, by furnishing the needed labor, opens out new productive possibilities that otherwise would remain closed, so that instead of robbing those here of work, his presence makes new and still more abundant work possible.

Despite the alleged excessive immigration of recent decades, the fact remains that the ratio between foreign- and native-born during the past fifty years remains substantially the same. The census shows that in 1860 the foreign-born were 13.2 per cent of the population, and in 1910 were but 14.7 per cent. Wages are higher, working hours shorter, and standards of living far in advance in the United States today compared with 1860.

It has been pointed out that immigrants have a passion for educating their children. The United States Commissioner of Education tells us in a Bulletin that

> the least illiterate element of our children is the native-born children of foreign-born parents. The illiteracy among the children of native-born parents is three times as great as that among the native-born children of foreign-born parents.

We find then that labor leaders and those who sympathize with their point of view are not warranted by the facts in opposing immigration. We find that our industrial needs, our agricultural needs, our domestic needs, all demand that we shall continue to extend the hand of welcome to every decent, able-bodied man and woman who is willing to come and work among us. We find that the greatest progress we have made in trade, in industry, in commerce, in agriculture, in education, in the arts and sciences and in social welfare has been made during the decades when immigration in this country has been greatest. We believe that ample provision has been made by law to keep out the mentally, morally, and physically unfit. We believe that these laws should be rigidly enforced and that if the present machinery for doing so is inadequate it should be bettered and perfected. We believe that in order to make still greater progress along all lines of human endeavor, we can with perfect safety and advantage to ourselves and to our children, as well as to the advantage of the fit immigrants and their children, invite them to be of us and with us for their good and for ours.

THE PSYCHOLOGY OF FLOATING WORKERS

By Peter Alexander Speek, Ph.D.,
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I

The evolution of productive factors is characterized by a gradual replacement of physical exertion by mental—of muscles by brains. The human being as motive power in the process of production is becoming more and more a directing power—in the sense that he directs the machines that do the actual work. Thus the imaginative and attentive abilities—will power, discipline, in short, the psychology of laborers—are gaining more importance, viewed from the standpoint of efficiency in production.

Notwithstanding the interdependence of efficiency and general well-being of the worker—a fact generally accepted in theory—the psychology of workers has not to any extent been studied either by the efficiency experts or by psychologists and sociologists. In this brief article are given some of the results of an investigation of the psychology of unskilled laborers which was made by the writer in 1913–1915 for the United States Commission on Industrial Relations.

II

In the normal times, before the present war,[1] it was a well-recognized fact that the numbers of the unskilled laborers were increasing rapidly as compared with the numbers of the skilled, and that the numbers of the lowest grades of the unskilled laborers—called migratory and casual laborers, drifters, hoboes, rounders, blanket-stiffs, etc., in short, the floaters—and of the unemployables—called tramps, bums, snow-birds, knights of the road, vagabonds, yeggmen, petty criminals, etc., in short, the down-and-outs—were increasing more rapidly than was the general population of the United States.

There are no statistical data to show the actual numbers of these elements of the population, nor are there comparative data

[1] This article does not attempt to deal with the abnormal conditions during the time of the European War.

to indicate the tendency of their proportionate growth during periods of time. Neither is there any machinery established by which such data may be gathered.

Loose estimates, or rather guesses, put the actual numbers of the lowest grades described—floaters and down-and-outs—somewhere above five million. More reliable seems to be the impression prevailing among students of industrial problems—labor leaders, employers, charity workers and the laborers themselves—that the numbers of these laborers, and especially the men of the down-and-out type, are increasing more rapidly than are the other classes of population in the country. Such persons usually point out that:

1. Unemployment has become an ever-present condition and is increasing every year.
2. More people apply for public charity, and the public poorhouses are more crowded than ever before.
3. Begging in the streets is growing.
4. Petty larceny and other small crimes are increasing. The same tendency is noticeable in regard to suicide, homicide, insanity and desertion of family.
5. Casualization of laborers is developing—they work only certain periods of time and these periods tend to shorten as years pass.

The reports of public employment offices, the pay rolls of employers, the interviews with employers and with laborers themselves, show that the process of casualization is developing rapidly. The vast majority of a large number of employers interviewed, especially of those in the lumber and construction industries, stated to the writer that the laborers are not what they were in former times. They no longer want to work continuously. They only work for a short period, to make a "stake"; then they quit and go to the city to "blow the stake in." The saying, "one gang is working, one going, and one coming," is true to a certain degree.

To the question, what is the matter with the men, the writer received varied answers. For example:

From an employer: The men are too lazy to work; our laws, courts and police institutions are weak as regards loafing, begging and stealing; and the charity organizations in the cities demoralize rather than uplift the men, by providing them with meals and shelter without labor.

From a charity worker: Yes, the men are falling down-and-out in a greater number than ever before. For this the hard and

unhealthy conditions at the work places are responsible to a degree, but, in the main, the men themselves are defective and responsible for their misfortunes. Some inherit certain defects by birth, but the vast majority have acquired bad habits, have weakened their bodies, and have lost ambition, will-power and self-respect.

From a preacher: The fountain head of the trouble consists in the fact that the men have lost religion; if they would turn back to God, everything else with them would be all right.

From a radical labor leader, socialist, I. W. W., or union man: The existing industrial conditions, low wages, long hours, poor living, etc., are responsible for the casualization of laborers and the production of hoboes and tramps. There is nothing wrong with the men themselves; do away with these conditions and with the wage-system in general, and there would then be no more down-and-outs—the product of industrial slavery.

From an educator: The main cause of casualization is the lack of training in general character building and in trade.

From a moralist: The main cause is drinking and prostitution—saloons and red-light districts.

From a student of industrial problems: For the casualization of laborers a number of causes are responsible; rapid introduction of skill-replacing machinery and other improvements in the technique of production; seasonable character of numbers of large industries; fluctuation of market; irregularity of employment; unregulated transportation of laborers; and pressure of circumstances and environment in general. The existence of casual laborers in large numbers is an essential of the present organization of our industrial system.

These widely varied opinions about the causes of casualization show the complexity of the problem.

III

According to degrees of steadiness and efficiency at work, the unskilled laborers may be divided into the following grades:

1. *Steady Laborers*

2. *Floating, Migratory or Drifting Laborers* who are constantly moving from job to job and from locality to locality in search of work and to "better the conditions." They may be subdivided into:—(a) seasonal and (b) casual laborers.

The seasonal laborers stick either to one industry, if its season lasts for a long time, say eight or ten months, or to a number of industries the seasons of which are short and occur in succession, as, for example, in the fall in lumber camps, in winter in ice camps, in spring in farm work, in summer in harvesting, then again in lumber camps, and so on. Their method of selecting jobs has some regularity.

The casual laborers, on the other hand, have no regularity—they accept and work on whatever job they secure, in whatever industry, and for whatever concern. They may be further divided into:—(a) casual laborers proper; (b) odd-job men; and (c) hoboes. The casual laborers proper earn all their living by labor; they do not beg, apply for charity or steal.

The odd-job men are rather a city type; they seldom go to work out of the city, although they migrate from one city to another.

Hoboes are a rank of casual laborers earning most of their living by labor, willing and desirous to work, but in the time of unemployment when hard pressed, supplementing their living by such means as begging, application for charity and stealing—"taking" meals, provisions, clothes and money, though only in such quantities as to satisfy their immediate need. Their self-respect is already shattered. However, they are laborers, preferring to earn their living by honest work.

3. *Unemployables or Down-and-Outs.* The main characteristic of these men is that they do not work. They may be subdivided into: (a) unable to work; and (b) able but unwilling to work, (1) common type—tramps, bums, vagabonds, etc., and (2) criminal type—pickpockets, yeggmen and other thieves and robbers.

The above classification of our unskilled and unorganized workers shows in general the steps in the downward movement in the lives of a large number of men. First a steady worker, then a seasonal and casual worker, then a hobo, then a down-and-out. To each of these successive stations corresponds a certain psychological condition upon which human conduct depends.

IV

Ambition and hope characterize almost every young man, who, leaving his family hearth, enters the outside world for his life's battles. Ambition and hope make life bright and enjoyable. The

possessor of these natural stimuli for working and fighting has no need of artificial substitutes and of defence-reaction.

But when ambition or hope fades or is shattered, different psychological characteristics appear in a man. An unskilled laborer, working at first steadily and afterward meeting failure after failure, begins to lose ambition and hope for a better future in his life.

The causes of his failure are varied. They are the unregulated life and labor conditions in the industries where unskilled wage-earners are employed, especially in various lumber camps and work places, including the farming industry; the unregulated distribution of labor—the unorganized labor market—including the unregulated transportation of laborers, and the uncentralized short or odd jobs in the cities; the irregular and seasonal character of work in many industries; the increasing tenancy in farming and, connected with it, child labor in farming; also child labor in other industries; strikes, especially those that fail; blacklisting; the absence of protective organizations among the laborers themselves. Other causes of the worker's failure are his educational defects; lack of knowledge among the immigrants of English, trade, labor laws and American customs, institutions and ways of life; lack of knowledge of trade and labor laws among the native working masses.

These direct causes produce certain effects which in turn result in the increase of the number of floating laborers, hoboes and down-and-outs. Of the indirect causes the following are the most influential: the bad living conditions and, still worse, the moral atmosphere of floating laborers in the cities; the evils in the lodging houses, the drunkenness, the prostitution, the gambling, the lack of healthy recreation facilities, the uncertain, gloomy and almost hopeless future of floating laborers.

V

One of the first signs of the decrease in the ambition and hope of a worker is the loss of interest in his earnings. He soon quits saving for two reasons: first, all of his previous attempts in saving failed because the hard times of unemployment, or illness, or some other misfortune ate up his savings; and, second, he begins to look upon his earnings as merely a means "to keep his soul and body

together," not as a means for his success in life. In consequence he begins to work seasonally and casually. First, industries require that kind of work, and second, seasonal and casual work corresponds to his changed views and needs. These changed views and needs are his desire to be on the move, and the need to earn only a "stake," a certain sum of money, specified in his own mind at the acceptance of the job. This stake is destined to help him to prosecute his immediate plans, to buy clothes and shoes, to have a "good time," to buy meals on his travels, or what not. But the main thing is, he must move; he must change his environment so as to see something new, interesting. To this end he has always a plan in his mind—where to go and how to go.

But when the last rays of his ambition and hope are gone he becomes a self-confessed failure and falls down, first, into the rank of hoboes—still laborers—and then into the rank of down-and-outs.

In the latter state he is characterized by the following psychological features:

(a) The passion for wandering is increased almost to madness;

(b) He has acquired a profound aversion to work;

(c) He drinks whenever and wherever he has a chance;

(d) He has developed a strange, childish expectation that he may strike in some way, somewhere, a tremendously promising opportunity. This is something like the alluring dream of a rich gold strike to a prospector. If this hoped-for opportunity were such that its realization might reasonably be expected, it would recreate in him a strong enthusiasm and confidence, as a result of which he would cease drinking, and would work and battle till he won out and became a victor in life instead of a beaten man. But if one asks him of what nature is the opportunity he expects to find, he answers that it may happen that he will by chance become a prospector and strike a rich gold mine; or marry rich; or he may become a fisherman, at first for wages, afterwards independently; or he may find a very good job, working on which he will save lots of money; or he may specialize in some line of highly paid work; or he may by chance secure a homestead; or—or—

Led by such faint hope—very faint, almost nothing in his mind, but strong enough in his sentiment—he roams restlessly over all the country, from north to south, from coast to coast, back and

forth, moving from place to place by freighting or walking, seldom paying his way in his rainbow chasing.

(e) He has lost his ability to concentrate on anything sensible.

How can such pyschological features, seemingly unnatural to any man, be explained? He is simply trying to escape from himself or to forget himself, in general. Life is dark and hopeless for him—nothing is left of his ambition, except gloomy thoughts and sad feelings.

Wonderful human nature invents other, one might say in common parlance, "artificial" substitutes for "natural" enjoyment appearing in ambition and hope. By changing environment—scenes—by constant wandering, he keeps up some sort of interest in life.

He is averse to work because his nervous system, by suffering and privation, is exhausted. Furthermore, he answers to the question why he does not want to labor: To labor! Why should I labor? I have labored, worked hard—years, tens of years, but the labor did not help, it let me fall down where I am as you see me.

But in general his idleness or "laziness" is nothing more or less than a kind of defence-reaction forced upon him by nature. In drunkenness he also finds a sort of "brightness" and forgetfulness. Rainbow chasing is again an artificial means of making his life "ambitious" and "hopeful." His lack of ability to concentrate his attention on anything is explained by the fact that he is worn-out and as a result his will-power has gone to pieces.

No law, court, police, prison, can "cure" him; nothing but medical treatment. But as medical treatment is more costly than the prevention of disease, the nation should take steps in the direction of preventing a large number of its members from falling down-and-out, beginning with the regulation of labor conditions in unskilled industries, especially in those of seasonal character.

HOURS OF LABOR

By George G. Groat,
University of Vermont.

The movement in the United States in regard to hours of labor in recent years has been very pronounced. The length of the working day has long been a subject for both legislation and collective bargaining as well as individual agreement. It appeared prominently in the agitation during the middle of the last century when ten hours became well established generally as a maximum and eight hours an ideal; a hope that has been an inspiration for agitation ever since.

In 1867, in response to the political movement of labor, the New York state legislature officially declared against a "sun to sun" day and enacted that "eight hours of labor, between the rising and setting of the sun, shall be deemed and held to be a legal day's work in all cases of labor and service by the day, where there is no contract or agreement to the contrary." Experience soon showed that this statute was no more than the expression of a wish for an eight-hour day, as it expressly did not prevent laborers and employers from forming an agreement for overtime. Other states followed the lead of New York with the same kind of statute.

Growing out of years of practical adjustment to which not only laborers and employers but legislatures and courts have been parties, the "require and permit" clause has been more generally introduced wherever statutory enactments have been at all effective. To prevent the exercise of the right to contract for terms other than those established by statute, employers are enjoined from either requiring or permitting employes to work beyond the specified number of hours.

The first generally effective regulation was that of child labor. This group of statutes is too well understood to need extensive analysis. All the states of the union make some provision for child protection, though it cannot be said that it is effective in all cases. The recent federal law goes far in establishing a standard; an ideal for all states and an effective regulation so far as products from

manufacturing establishments generally enter into interstate commerce. Products of mines and quarries are not to be admitted to interstate commerce if within thirty days prior to the removal of the product children under sixteen have been permitted to work. Products of mills, canneries, work shops, factories or manufacturing establishments may not be so admitted in cases where children under fourteen have been permitted to work or children between fourteen and sixteen more than eight hours a day or more than six days a week or after seven o'clock p.m. or before six o'clock a.m. of any day. This leaves many industries uncontrolled and much work yet to be done in the several states.

Legislation to regulate the hours of labor for adult women began early but did not proceed rapidly until comparatively recently. Massachusetts began in 1874. This class of regulatory legislation has now become a generally accepted policy, no fewer than forty-one states having enacted statutes expressly limiting hours of labor for adult women. This class of statutes covers some variety of industries and makes by no means a uniform length day or week. A classification that would indicate all the provisions of these laws must be omitted here. In general it appears that four states and the District of Columbia have an eight-hour day;[1] ten have a nine-hour day;[2] twenty have a ten-hour day;[3] two have an eleven-hour day, but less than a sixty-six-hour week;[4] and five have laws that are somewhat too complex for this simple classification.[5] This leaves seven states with no legislation.[6]

Efforts are at present being made through regional or sectional conferences, led by the Consumers' League and the National Women's Trade Union League of America, to secure a greater degree of uniformity in this class of legislation.

General attention has also been turned to the dangerous trades. Here the complexity of actual legislation is somewhat

[1] California, Colorado, Washington and Arizona.

[2] Arkansas, Maine, Missouri, Nebraska, New York, Texas, Utah, Idaho, Montana and Oklahoma.

[3] Connecticut, Delaware, Kansas, Massachusetts, Michigan, Ohio, Pennsylvania, Rhode Island, Wisconsin, Wyoming, Georgia, Kentucky, Louisiana, Maryland, Mississippi, New Jersey, Illinois, North Dakota, South Dakota and Virginia.

[4] North Carolina and Vermont.

[5] Oregon, Minnesota, New Hampshire, Tennessee and South Carolina.

[6] Alabama, Florida, Iowa, Indiana, Nevada, New Mexico and West Virginia.

bewildering. To the more obviously dangerous trades, as mining, smelting and railroading have been added others where the danger is not so apparent. This makes a classification on the basis of dangerous and non-dangerous very difficult in practice. There is, however, a line of development that has been followed in the main and which may be stated as follows: industries dangerous to life and limb; industries more obviously dangerous to health; industries which experts pronounce to be dangerous though not commonly understood to be so; employments related to public utilities and so clothed with a peculiar public interest; industries that from their very nature are continuous, the twenty-four-hour seven-day industries; certain trades where organization is so thorough as to enable the unions to secure legislation; and, finally, industries more generally, in connection with which scientific knowledge of fatigue is related to the issues of social welfare. Space does not permit these developments to be traced at length. The present status only may be described.

The New York statute, as quoted above, has been adopted practically in its original form by several states among which are Pennsylvania, Illinois and Indiana. Still other states seek to define the working day in this indefinite way.[7] Seven of these stipulate ten hours instead of eight. As has been said, this legislation has had no practical effect in establishing the length of the working day. Yet its potential influence should not be overlooked. As the movement advances it will be easier to recognize these statutes and secure their amendment by attaching the "require or permit" clause than it would be to enact new ones.

The more effective legislation has been enacted in connection with dangerous trades. For work in mines thirteen states have established the eight-hour day.[8] One other state (Maryland) has a ten-hour limit. Of these same states, eight extend the restriction to smelters as well.

For railroads the legislation is much more complicated. The continuous service required, the division of the work into train operatives, station men, dispatchers, signal men and other branches

[7] California, Connecticut, Florida, Maine, Michigan, Minnesota, Missouri, Nebraska, New Hampshire, Ohio, Rhode Island and Wisconsin.

[8] Arizona, California, Colorado, Idaho, Missouri, Montana, Nevada, Oklahoma, Oregon, Pennsylvania, Utah, Washington and Wyoming.

make the regulation of hours more difficult. For train men there is no definite length of day. The Adamson law is but an experiment and even that appears to establish a unit for the adjustment of wages rather than a definite working day. Practically all legislation governing hours of labor for train men, therefore, establishes a maximum number of hours during which a train operative may be permitted to work without rest and further establishes the number of hours of rest that must intervene before work is resumed. The number of hours of labor allowed is usually sixteen. In Georgia and Florida, the number is set at thirteen; in Michigan, twenty-four, in Oregon, fourteen. In some cases eight hours and in others ten hours of rest are required after such a period of work. The number of states with this legislation is twenty-five. Michigan and New York establish a ten-hour limit within twelve consecutive hours.

For telegraph and telephone operatives, dispatchers and signal men, the limit is eight hours in eight states,[9] and nine hours in four states.[10] Exceptions allowing longer hours are sometimes made where stations are open only by day.

On street railways the regulation is not so general. The Massachusetts law allows only nine hours of work to be performed within eleven consecutive hours for men operating street cars. Ten hours within twelve is permitted in five states,[11] and twelve hours in five others.[12]

Much more general is the establishment of the length of day in public works and in contract work done for the public. Eight hours is the legal limit in public employment in twenty-four states, three territories and under the jurisdiction of the United States. In nine of the states the limitation is embodied in the state constitution,[13] while in the remaining fifteen it is statutory.[14] With

[9] Arkansas, Connecticut, Maryland, Nevada, New York, Texas, West Virginia, Wisconsin.

[10] Missouri, Nebraska, North Carolina and Oregon.

[11] Louisiana, Michigan, New York, Rhode Island and Washington.

[12] California, Maryland, New Jersey, Pennsylvania and South Carolina.

[13] Arizona, California, Idaho, Montana, New Mexico, Ohio, Oklahoma, Utah and Wyoming.

[14] Colorado, Indiana, Kansas, Kentucky, Massachusetts, Minnesota, Nevada, New Jersey, New York, Oregon, Pennsylvania, Texas, Washington, West Virginia and Wisconsin.

narrower limits the restrictions obtain in three more states.[15] The situation is the same for contract work done for the public, the only exception being that fewer states have embodied the provision in their state constitutions.[16]

The list of restrictions in other industries is not altogether brief though no general policy appears to prevail among the several states. For drug clerks California, as a "measure of public health," has specified ten hours a day or sixty hours a week of six consecutive calendar days. New York under the "require or permit" form of statute settles seventy hours a week with an overtime margin in any week for the purpose of a shorter following week, the aggregate hours in any two weeks to be not more than 132, with one full day off in each two weeks.

In bakeries, New Jersey establishes ten hours a day with privilege of longer time for the purpose of a shorter day at the end of the week, the total for the week being limited to sixty hours. Arizona puts an eight-hour limit on electric light and power plants. Nevada limits work in plaster and cement works to eight hours and Arizona the same for cement works. Grocery clerks in New York City have a seventy-hour week and an eleven-hour day except on Saturday. Work in coke ovens and blast furnaces has an eight-hour legal limit in Arizona and Colorado. Missouri establishes eight hours in plate glass works. Rolling and stamp mills are restricted to eight hours in Arizona, Colorado, Idaho and Wyoming. New York and New Jersey regulate time in air pressure tunnel work according to the density of the pressure; for example, when air pressure is between twenty-two and thirty pounds to the square inch, six hours is a day's work to be divided into two three-hour periods with one hour between. Montana regulates irrigation work to eight hours, and telephone operatives to nine. Saw- and planing-mills have a ten-hour day in Arkansas. In cotton and woolen mills Georgia and Maryland have established a ten-hour limit, subject to some complicated details. Mississippi has a general ten-hour day for manufacturing establishments. It cannot be understood that all such regulations are actually effective. To what extent they are positively enforced cannot be so easily stated.

[15] In Connecticut it is restricted to mechanics in state institutions; in Maryland, to the city of Baltimore; and in Missouri, to cities of the second class.

[16] Arizona, Montana, New Mexico, Oklahoma, Ohio and Utah.

By far the most interesting regulation of hours is the Oregon statute, now before the Supreme Court of the United States on the issue of its constitutionality. This law provides that no person shall be employed in any mill, factory or manufacturing establishment for more than ten hours in any one day, except watchmen and employes engaged in making necessary repairs or in case of emergency when life or property is in imminent danger. A three-hour overtime limit is permitted, in which case overtime pay must be at the rate of time-and-one-half. In order to place this statute on a firmer basis than such laws have had in the past, the first section declares the specific purpose of the law:

> It is the public policy of the state of Oregon that no person shall be hired nor permitted to work for wages under any conditions or terms for longer hours or days of service than is consistent with his health and physical well-being and ability to promote the general welfare by his increasing usefulness as a healthy and intelligent citizen. It is hereby declared that the working of any person more than ten hours in one day in any mill, factory or manufacturing establishment is injurious to the physical health and well-being of such person and tends to prevent him from acquiring that degree of intelligence that is necessary to make him a useful and desirable citizen of the state.

To make a complete statement of hours of labor in the private industries of the country is quite impossible. The variation is certainly wide. The report of the United States Bureau of Labor Statistics on *Union Scale of Wages and Hours of Labor* (May, 1916, No. 194) gives much information that is doubtless typical. It covers trades and occupations of eleven different groups with information from forty-seven important industrial cities in all parts of the country and includes data from 676,571 union workmen. Reducing the facts to index numbers and stating them comparatively, it appears that between 1907 and 1915 there was a decrease of 3 per cent in the full-time hours per week. As the latest date taken was May first, 1915, the change does not show the effects of the development of the last eighteen months. The decrease in the time since 1907 has been very gradual, remaining at 100 (index number) for the first two years, 99 for the next two years, 98 for the next three and 97 for the last two.[17]

There can be no doubt that marked progress in the direction of a shorter day has been made within the past year and a half.

[17] United States Bureau of Labor Statistics, *Bulletin No. 194*, p. 21.

A recent inquiry made by Miss Pickering estimates that over 100,000 laborers have been put on an eight-hour day within the past two years.[18]

It may fairly be assumed that the movement will continue unchecked for at least as long as the war continues. What will then happen can be but conjecture. Yet it cannot be supposed that the pronounced movement for a shorter work day is due solely to the war. It was clearly in evidence before the war began. It may receive a temporary check if the post-bellum conditions prove to be as disheartening as many would lead us to expect. It can be but temporary, however. The indications point quite clearly to that conclusion. "Sooner or later the eight-hour day will be universal," so many employers are quoted as saying. Many of these have demonstrated by actual trial that the eight-hour day increases output. Mr. Henry Ford is not alone in the conclusions that have been so widely quoted from him.

Agitation will continue, accompanied by strikes if necessary as well as by more legislation. At a recent meeting of the Building Trades Department of the American Federation of Labor resolutions were introduced suggesting a six-hour day for all unions of building mechanics as a solution of the unemployment problem. The Metal Trades Department called for an eight-hour day in the ship-building industry. The Labor Center Association of New York is organizing a campaign for a universal eight-hour day, supplying liberal quantities of material for propaganda with the popular slogan: "For the Eight-Hour Day; a Movement Toward Justice."

The inevitable extension of the limitations on the hours of labor for women must have its effect on shortening hours for men also. Experience shows that this legislation "effects a corresponding reduction in the hours of labor for men in many establishments in which both men and women are employed." [19]

In a more scientific spirit the subject is being studied in several fields. Inquiry is being made regarding laws governing the working time of hospital employes and nurses, and opinions are being gathered on the advantages of such laws. The results are to be presented at the next meeting of the American Hospital Associa-

[18] *Survey*, April 1, 1916, p. 5.

[19] *Report, Massachusetts Statistics of Labor for 1915*, Pt. VI, p. 42.

tion. In Massachusetts there is a recess legislative committee studying conditions of labor in continuous or twenty-four-hour industries. At the request of a body of thirty-three manufacturers of Milwaukee, a careful investigation of the effects of the eight-hour day in the factories of the state of Wisconsin will be made. The United States Public Health Service will study the conditions of Wisconsin women workers to determine proper hours of labor, and the Wisconsin Industrial Commission will act upon the suggestions made in the report. In the Report on *National Vitality* by the Committee of One Hundred on Public Health, one of the "things which need to be done" is stated as follows (page 128): "employers may greatly aid the health movement . . . . by providing . . . . physiological (generally shorter) hours of work. . . . ."

The direction of the movement is unmistakable. It has not only the support of organized labor, of many reformers and public-spirited leaders; but many of the more enlightened employers of labor find it possible to combine their philanthropic inclinations with good business policy in shortening the hours of labor in their establishments. It is beyond question true, as President Wilson has recently said: "The eight-hour day now undoubtedly has the sanction of the judgment of society in its favor." To what extent the changes may be carried by law is a question that especially now is in the balance. Should the United States Supreme Court uphold the decision of the supreme court of Oregon in declaring the constitutionality of the Oregon statute above referred to, the way will be much easier for relating hours of labor to social welfare than it has hitherto been. If not, the way will be more difficult; progress will be slower, but on the whole and in the long run none the less certain.

MAXIMUM VS. MINIMUM HOUR LEGISLATION

By Richard A. Feiss,

Manager of the Clothcraft Shops, Cleveland.

1. Public opinion is back of the movement to shorten hours and I am heartily in favor of this movement. A different view, however, should be taken in working this out from that which has been taken in the past. I believe that there are two distinct phases to this question: first, that hours should not be so long as to cause fatigue, and second, that when this length of hours has been reached, it is very desirable still further to shorten hours as a reward for efficiency.

2. Generally speaking, the desirability of the second has been confused with the first and has led to drastic and unintelligent legislation without consideration of the facts. In my opinion the scope of legislation should be strictly limited to the first proposition. If such legislation is to be based upon facts, the result will not be an arbitrarily hard and fast limitation of an eight-hour day or a forty-eight-hour week applied to all indiscriminately, regardless of conditions.

3. If we are to consider the facts, the industry itself must be taken into consideration from every point of view. In other words, there are conditions inherent in the nature of the industry that should govern the situation. In some industries women are required to perform hard manual work while standing in water or confined to work rooms that have to be especially heated to a very high degree of temperature. It is apparent that the maximum limitation of hours in such an industry should be vastly different from that in an industry having good wholesome surroundings and requiring only a minimum of physical effort.

4. Moreover, in order that the great mass of workers in a scientific organization may work the minimum of hours, it is essential that a few, whose business it is to prepare their work and whose actual efforts are generally semi-clerical and intermittently performed, work a greater length of hours than would be considered a proper standard for the general working force. For example, it

will be generally conceded that the great mass of executive work of an organization requires a longer time for its performance than that of the general body of workers in the shop. Practical legislation must not only take this fact into consideration but must also provide for the large amount of semi-executive work which is also essential in a well organized plant to insure against the usual delays and other obstacles in furnishing work to the worker. This does not mean that the principle of limitation of hours should not be applied to all. In fact it is just as essential to have the hours of office and bank clerks, household servants and others included in maximum hour legislation as those of any other class of work. I believe, however, that legislation should take into consideration all the facts and conditions and should not make any general provisions, rather making limitations dependent upon industry, occupation and other specific conditions.

5. In the construction of legislation of this nature I wish particularly to call attention to the desirability of having limitations set rather for the week than for the day. Limitations for the day should be of such a nature as to permit weekly limitations of hours to be used up in any five days in the week. Investigations are bringing us more and more to realize that cumulative rest periods at the end of the week are more valuable than shorter rest periods scattered through the week. We believe that further investigation will undoubtedly prove that it is a most beneficial plan for workers to work somewhat longer periods during five days in the week in order to get two days of complete relaxation at the end of the week. It is our opinion that in the near future the ideal week for the worker will consist of five full days of work and two full days of rest. Unintelligent legislation is one of the greatest obstacles to this attainment.

6. I wish particularly to call attention to the fact that the sphere of legislation should consist in setting maximum limitations. Very often the minimum or at least the actual standard desired is set up as the maximum, the practical result being quite different from that intended by those who support this kind of legislation. Naturally, the result is neither sound nor fair.

7. In the vast majority of industries, and in fact in all industries involving consecutive or continuous manufacture, it is absolutely essential that a small group of workers work a little more than normal hours occasionally in order that the remainder of the workers in

the business do not materially suffer. These extra hours of overtime, while sincerely deprecated by all, do not, however, become a burden, because in the ordinary course of things they are distributed and occasionally fall on this group and occasionally on that group of workers. In its effect upon any one group it amounts to a very small fraction of time, but it is very essential to the rest of the organization and should be provided for by intelligent legislation. To provide for the above practical contingency the maximum limitation of hours can be set somewhat higher than the actual effect desired. For example, if the maximum is fifty or fifty-two hours a week, the average regular time in a factory will necessarily be about forty-eight hours or less.

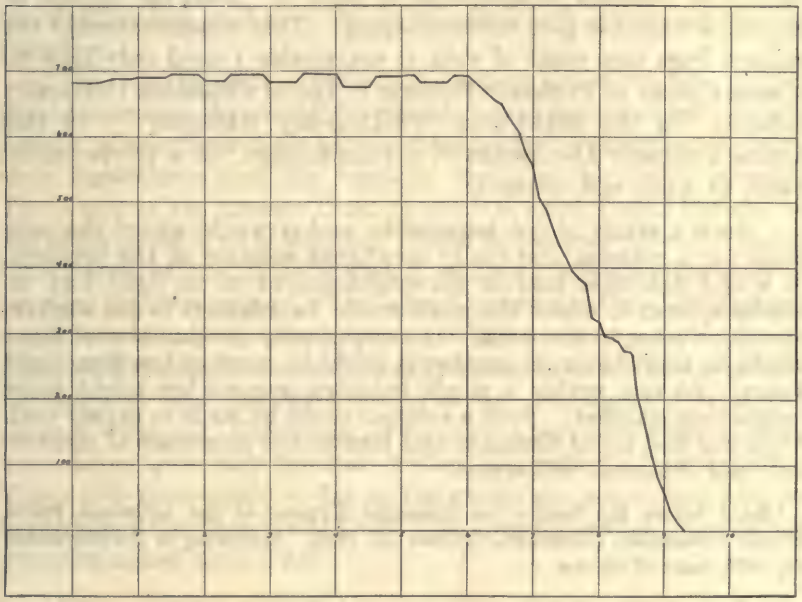


Fig. I will show the chart of a typical day's work in a scientifically managed factory. This will illustrate the fact that, where work consists of a series of consecutive operations, the length of time worked by different operators varies considerably, and while in this instance there are a very few operators whose work covers a period of nine hours or a little over, the working time of the vast majority is considerably less. So the record for any week's work in

the same factory would show a few operators working about fifty hours, while the actual hours of work average between forty-three and forty-four.

Another way to meet contingencies of this kind is to have the law provide for a standard working schedule to be properly posted in every work room with a certain additional number of hours extra time permitted with certain other restrictions. There are of course many other ways for meeting this and similar contingencies which have to be faced in the practical working out of legislation of this kind. The chief thing to my mind in the working out of reasonable legislation should be the taking into consideration of facts and their results and a full realization that the facts in each case should be the subject of scientific investigation by experts. That the opinion of experts is valuable goes without saying. That consideration of the subject from this point of view is practicable I need only refer to a recent paper of Professor Frederic S. Lee of Columbia University entitled "Is the Eight-hour Working-day Rational?"[1] In this article Professor Lee speaks of a classification, on a physiological basis, of work and workers:

> Such a study is not impossible, and it would afford the only basis for a rational and really intelligent solution of the problem. It would doubtless lead to the establishment of no rigid, but an elastic system in which the work would be adapted to the worker, and the worker to the work. In one industry the duration of labor might be eight hours, in another it might be more or less than eight hours. So too, within a single industry one worker might labor longer than another. Such a solution could be made to satisfy both economic and social demands and lead to the maximum of individual and national efficiency.

[1] Read before the Section on Industrial Hygiene of the American Public Health Association, Cincinnati, October 25, 1916. Appearing in the November 24, 1916, issue of *Science*.

PROGRESS OF THE PUBLIC EMPLOYMENT BUREAUS

By Henry G. Hodges,

Instructor, Municipal Adminstration, Western Reserve University, Cleveland, Ohio.

Our annual crop of governors' messages for 1915 brought forth from all points of the compass alarming conditions of unemployment.[1] During the winter of 1914–1915, mayors in all parts of the United States were appointing "Unemployment Commissions" to enlighten the public on the actual conditions and to suggest the remedies.

The most popular remedy that suggested itself to these citizen committees was the establishment of public free employment bureaus. Hence the avalanche of legislation that was rushed through state legislatures and city councils providing for these bureaus. There are, at the present time, public free employment bureaus in 152 cities in the United States.[2] These bureaus are operated under the auspices of city, state or nation, some cities being taken care of by more than one agency. The federal government has been operating for the past two years, a system of labor exchanges through its eighteen distribution zones. Twenty-three states are now conducting more or less efficient systems of free employment bureaus.[3] Four of these, *viz.*, California, Iowa, New Jersey and Pennsylvania have taken over this function within the past eighteen months. The whole movement, so far as the states are concerned, had its beginning in the Ohio law of 1890. No development of consequence was attempted until 1905.

[1] Note particularly those of Governor Hunt, Arizona; Governor Johnson, California; Governor Capper, Kansas; Governor Willis, Ohio; Governor West, Oregon; and Governor Lister, Washington.

[2] Bulletin, United States Bureau of Labor Statistics. Whole number 192. May, 1916, pp. 144–5.

[3] California, Colorado, Connecticut, Illinois, Indiana, Iowa, Kansas, Kentucky, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Jersey, New York, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Dakota, West Virginia and Wisconsin.

The sudden death of those conditions which gave rise to the recent abnormal growth of the public free employment idea is the outstanding characteristic of the past year. The Public Affairs Information Service, under date of November 10, 1916, observes, "There were no references made in the messages of the governors with reference to public employment bureaus in 1916." The man and the job have reversed positions; the latter is now on the hunt for the former. The federal branch at Buffalo, New York, reports "a great demand for labor of all kinds." The inspector in charge of the New York City branch writes that "the demand for labor of all sorts is far in excess of the supply." From the Iowa Bureau of Labor Statistics comes this statement: "During the past three months it has been impossible to supply the demand for laborers throughout the state, and the situation is a little worse just at this time as a great many laborers are leaving for the farms to pick corn."[4] Conditions are even worse in Ohio, where a Cleveland paper reports an influx of 2,500 southern negroes to that city in ten months, attracted by a continually increasing wage scale.[5] James P. Robbins, inspector in charge of the Philadelphia federal bureau, reported on October 14, 1916, that he had "active opportunities right now for at least 5,000 miners and mine laborers," and that "the demand for first class laborers at twenty-three cents an hour and upwards, is practically unlimited." The New York State Bureau of Statistics and Information is responsible for the statement that between August, 1914 and August, 1916, the number of employes in that state increased 22 per cent, while the increase in wages was 43 per cent.[6]

In spite of these glittering possibilities from the standpoint of the workman, the public employment bureaus have had some work, even in hunting for jobs. The director of employment in Kansas City, Missouri, was presented with a task of no mean proportions when the Third Missouri Regiment returned to that city, from the Mexican border. And so it goes; general conditions have exceptions, and their oscillations are more or less regular. The employment bureau

[4] Letter, dated October 13, 1916, from J. C. Nietzel, Chief Clerk, Bureau of Labor Statistics.

[5] *Cleveland Plain Dealer*, October 20, 1916.

[6] *The Bulletin* Issued monthly by the New York State Industrial Commission. Vol. I, No. 12, September, 1916, p. 19.

is one of the *regulators* that tends to keep the pendulum hovering about its lowest point.

The first attitude of the large employer of labor, uninfluenced by the experience of actual dealings with the public employment bureau, is one of accord. The average "big" business man is, in principle, sympathetic with the basic idea of the public employment bureau, *viz.*, direction of the workman to a job, without compensation. The director of the employment department of the Ford Motor Company, of Detroit, says: "It is against our policy, absolutely, to hire any man who has to pay any one for a job, and our opinion is that we have better success otherwise."[7] The employment manager for the Cleveland Hardware Company, a concern employing several thousand men, is of the same opinion.[8] One of the largest employers in Buffalo, New York, suggests that he has "never employed a private agency, on the theory that a man whose services are at all desirable will go out and get his own job."

With the original attitude of the large employer so favorable to the principle upon which the public employment bureau is founded, how shall we account for so much of the subsequent dissatisfaction that develops? Are these free bureaus performing the functions, within their sphere, with that degree of efficiency which we may reasonably expect?

One method often employed for testing the efficiency of the public bureaus is the resort to statistics. How does the number of jobs filled this year compare with last? What is the relative cost to the state for each position filled? What is the proportion between the number of applicants for positions and those actually placed? Comparisons of such results from year to year within a single state, between the bureaus of the various states, and between the several employes of a given bureau, are looked upon by many as criteria of progress. It is not so much the number of positions filled by the employment bureau as it is the satisfaction given both parties—employer and employe—by the transaction. This element of human satisfaction does not appear in the statistical bal-

[7] In a letter to the writer, dated October 28, 1916.

[8] "It has always seemed to me that it is unfair for a man to have to pay a private employment bureau for a job, and I do believe that a free employment bureau would be a great benefit to the man coming to a strange city."—F. G. Douglass, Manager, Employment Department, October 27, 1916.

ance sheet. The placement that cost the state ten cents may be worth ten dollars, in results accomplished, while the placement that cost only five cents may be actually valued at less than nothing.

What are some of the complaints of the chief customers of the public bureau?

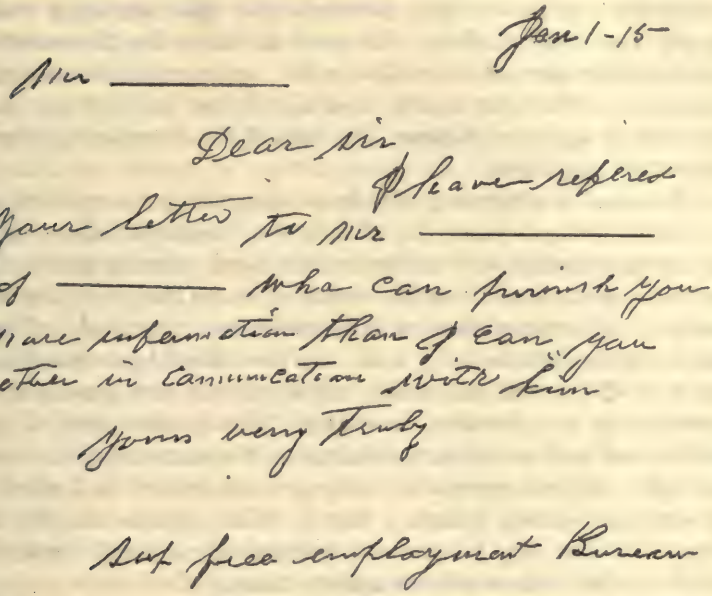
The most usual cause for adverse criticism on the part of the business man in his dealings with public agencies, is the "political" element which seems to him to dominate. The present case is no exception to that rule. The Buffalo concern, previously referred to, agrees that "the most serious objection is that the offices are largely of a political nature, and even though the clerk in charge may be on the civil service list, he usually feels that he owes allegiance to some state politician." Dr. H. C. Person, Director of the Tuck School of Dartmouth College,[9] a school whose business it is to train employment managers, informs me that the inquiries which he is continually receiving, asking him to recommend graduates for employment departments, invariably come from private concerns. Referring to the opportunities for their men in the public service, he said: "My feeling is that political conditions are so strong that there will not be much call for the men."

One business man, in noting that politicians are paid salaries rather than wages, explained that a salary is what you get, while a wage is what you earn. He further noted that wage-earners are not prolific among political appointees. An interesting fact is that most of the poor results in this field that may be attributed to political appointments are caused by the comparatively low salaries attached to the positions. The usual salary of $1,200 is not attractive to a qualified employment manager.[10] This figure eliminates him immediately from consideration. Usually the available material consists of either mediocre politicians or those ordinary mortals who are able to pass a low grade civil service examination where there is little competition. These men are very poorly equipped for their duties, with neither experience nor training. Added to this poor equipment, the office often suffers from a kaleidoscopic personnel, thanks to political exigencies. The photo-

[9] Consult 1916–1917 Bulletin, The Amos Tuck School of Administration and Finance, Hanover, New Hampshire, p. 31.

[10] The Colorado law, which is typical, provides a tenure of two years for the local superintendents, with a salary of $1,200. (Colorado Statutes, Sess. L, 1907, p. 292.)

graphic reproduction of a reply to an inquiry, from a $1,500 local superintendent, illustrates the point.


Jan 1-15

Mr _____

Dear Sir
I have refered
your letter to Mr _____
of _____ who can furnish you
more information than I can, you
better in communication with him
Yours very truly

Supt free employment Bureau

Photographic reproduction of a letter received from the superintendent of a local public employment bureau. This letter was written in lead pencil. The man's salary is $1,500.

Mr. Chas. B. Barnes, Director of the New York State Bureau of Employment, states that when he was visiting most of the public employment offices in the United States in the interest of the United States Industrial Relations Commission, he found "that the general conception of public employment offices was rather low. This led to the appointment of any sort of man who needed to be paid for his political work."

Another explanation that the large employer gives for not making the public employment bureau his regular servant, is the contention that they supply, as a rule, only the lower grades of help. The John Wanamaker Store, Philadelphia, rarely uses the public bureau because they "do not include, to much of a degree, the needs of a retail merchandising establishment. Consequently the private agencies render more efficient service."[11]

[11] Letter of October 27, 1916.

This is one of the hardest things the efficient public agency has to combat. A number have been successful. The Los Angeles, California, report for 1915, contends that that bureau is ready to supply any kind of help. As proof it notes the placement of a court stenographer at ten dollars a day, a vice-president and general manager at $250 per month, and a collector at $150 per month. The federal agent at Kansas City tells of his struggles to overcome the same "prejudice."

Success in obtaining and developing the good opinion of the employer, without which the office is foredoomed to failure, depends on the personality and calibre of the local superintendent. This feature must first of all be taken care of in the law providing for the bureau. After provision has been made for a practical civil service examination (written and oral), the law should provide for such funds as will permit attractive initial salaries, and possibilities for increases as the occasion warrants. The combination of a civil service test and an attractive salary is the surest way to ward off the unfit political appointee. One private agency in Detroit pays its manager sixteen dollars a day.[12] What chance has the public bureau in that city to compete successfully against the skill and experience of such a private agency manager?

In spite of these well known facts, many of our state systems are without proper financial support. Some legislatures have actually passed laws establishing free bureaus without providing any funds at all. It is evident that in such cases petty politics were rife from the start, and it was probably fortunate that no appropriation was made. Several bills were introduced into the California legislature before one was finally passed. The first one that passed the legislature was not signed because the state Bureau of Labor Statistics felt that the appropriation was inadequate to carry on the work. After these many hold-ups California obtained an excellent bill and a fair appropriation. Maryland's first act, in force until last year, granted $1,000 for the annual upkeep of the system.

There are many cases in which the man in charge has had practically no experience at the work, but is actually interested and eager to master his subject. Several letters from superintendents conclude with the request to be furnished with any printed

[12] *Bulletin No. 192*, United States Bureau of Labor Statistics, p. 23.

matter of interest on the subject. The central offices, of the state and federal systems would do well to make an active effort to keep their field men systematically supplied with appropriate literature and suggestions. The federal Bureau of Labor Statistics has made a beginning in this direction. The local men are probably not so much stimulated by periodical doses of comparative statistics as they would be by readable accounts, with results, of what their fellow workers are doing in various parts of the country. Statistics, although they may at times be stimulating, rarely awaken a vision, even in the trained mind.

There are many and varied developers of business known to the private employment agency. Some of their methods have been adopted by the public agencies, and in several cases carried to more advantageous conclusions. There is a general admission, on all sides, of the superior ability of the private agency solicitors when in competition with the public bureaus. Of course, the private agency has the advantage of being able to divide the spoils with the person who has final decision in placing workmen. But the fact is that in most cases the public bureau makes no attempt at personal solicitation. Here, again, funds are necessary. Many of the public agencies could not solicit through a representative if they wished to.

Where personal visits are impossible the mail and 'phone have been used to great advantage by the more progressive superintendents in going after new business. Mr. C. L. Keep, the federal agent at San Diego, California, has an attractive form letter that he addresses to everyone inserting a help wanted advertisement in the local papers. He reports a remarkable success for this device. The letter is often saved by the employer for future reference.

The use of interpreters in employment offices in certain sections of the country adds greatly to their popularity. It is one of the boasts of the Milwaukee, Wisconsin, office that its force represents a combined speaking knowledge of eighteen different languages.

Publicity is one of the essential features of the successful office. The newspapers must be convinced of the mutual benefits to be derived from running daily free advertisements for the public bureau. Feature stories serve to keep the successful local bureau constantly before the public eye. Several public bureaus complain of lack of funds for newspaper advertising, while several others who

are most active in point of newspaper publicity point to the fact that they never pay for any of it. Much publicity is obtained through bulletins in post-offices and other public buildings. The Wisconsin offices send representatives to make brief addresses, covering the functions of the bureau, at county fairs and farm institutes. In line with their general policy to "Boost Missouri" the bureaus of that state utilize the backs of letter heads and envelopes to help advertise themselves. These suggestions represent only a few of the more important ways in which the progressive office obtains its publicity.

FOR HIGH GRADE HELP

WRITE, WIRE OR PHONE

STATE FREE EMPLOYMENT OFFICES

ST. LOUIS: 917a Pine Street Phones, Main 3184, Central 4953
KANSAS CITY: 215 Sheidley Bldg., Phone, Main 4204
ST. JOSEPH: 110 N. Seventh Street Phone, Main 1439

Labor of All Kinds Furnished No Charge for the Service

Mr. Charles B. Barnes, Director of the New York State bureaus, and probably one of the most efficient men in the service, has instituted many new features in the system of which he has charge. He makes it a rule to visit each branch office every month. These visits last from one to three days. The branch superintendents send to the general office, at the end of each month, a "general letter" which discusses anything of interest to the director or to the superintendents of the other branches. Such features undoubtedly develop that *esprit* essential to a satisfactory service.

Next in importance to adequate financial support, the word coöperation must certainly be the guiding star if the public employment bureau is to be a considerable factor in relieving the stress of

labor problems. Coöperation has to extend itself throughout every ramification of the service. It seems almost impossible that a federal employment agent could write in November, 1916:

> I have had very little correspondence with other bureaus—in fact, they do not seem to know how to coöperate. The agent of the state-city bureau in ——— called on me once, but he did not impress me favorably in the least. He reminded me too much of his past deeds and accomplishments in a political way, and didn't drop even a hint as to how our work could be bettered.

This condition, however, should hardly be considered as typical. The Nebraska system, although it is far from being a leader in the general field, due to the meagreness of the appropriation, has achieved an excellent coöperation in its handling of harvest hands for the state. An annual bulletin, issued in June, and prepared after a thorough survey of every county, deals with crop conditions and harvest field needs. This bulletin considers those needs in actual figures, based on the estimates of the individual farmers.

There may be coöperation in numberless ways. The women's department of the Kansas City bureau has rallied the active support of the various alumnae societies in the city. The aid of rural postmasters is often used to advantage. These offices become, in effect, sub-bureaus. The public school system is directly interested in the vocational guidance work undertaken by some of the older bureaus. The success of this phase of the work varies directly with the intensity of the coöperation between the two organizations concerned.

Coöperation among the various bureaus, municipal, state and national, is the final step in this program of coördination and centralization. We have many instances of the state and city working together in city-state bureaus. The paramount consideration in the establishment of the federal system was the providing of means for the proper distribution of labor over the country, as a whole. These federal bureaus are coöperating, in a few particulars, with many of the state and city bureaus. In Los Angeles the federal bureau joined the city-state bureau to establish a city-state-federal bureau. The first advantage of such a union is the mail franking privilege which the federal representative brings to the office. In this particular instance, the combination made it possible to send out two solicitors with automobiles to visit the large employers.

Coöperation in this field is still in its infancy. It might be used, when more fully developed, to provide a uniform system of

reports and records. Records have value chiefly as they furnish means of comparison. The present method of multi-form records robs them of most of this value. An adequate uniform system of records throughout the country would furnish the basis for future progress in the management of the local office.

Every time an organization of public employment bureau managers meets, it considers the possibility of eliminating the private bureau. This elimination was the subject of one of the five resolutions passed by the American Association of Public Employment Offices at its Indianapolis meeting, September 25, 1914.[13] The evil practices of the private offices are limited only by the ingenuity of their managers.[14] There is, we would venture, a large percentage of the private agencies operating on an open and business basis, and performing a very desirable function in the locality served. These agencies should not be legislated out of existence, it seems to me, until a satisfactory substitute is assured. The question to be decided in this connection is whether or not the public agencies have covered the field, and covered it successfully. When the answer to this question is a reasonable affirmative, the decent private agencies should be made to suffer for the sins of their less respectable brothers, and the system abolished. The constitutional provision relating to the confiscation of property will not be overlooked by the vested interests in private agencies.

The incontrovertible logic of the situation would tend to suggest that as the public agencies surpass the private in services rendered, the private will be weeded out by natural forces. Of course, there would be lingering instances of an unnatural existence where the private agency was in league with the employment agents of large companies, under an agreement to split the fees. But the experienced and efficient manager of the public bureau would soon find ways and means to undermine these personal deals. Few concerns are in business for the benefit of their employment agents. It is as unprofitable to the employer to pay wages to a continuous stream

[13] "*Resolved*, That this association go on record as favoring the elimination, as soon as possible, of all private employment agencies operating for a profit within the United States, and that it recommends to the consideration of the United States Commission on Industrial Relations and the various state legislatures legislation having this end in view."

[14] For an outline of some of these practices see an article by the author in *The Annals* of May, 1915.

of green men as it is profitable to the private agent. Broad powers of supervision and control (properly administered) of private agents is a reasonable protection until such time as they shall be eliminated by competition with the public bureaus.

The public bureaus have not been altogether relieved, as yet, from the national suspicion of labor organizations. That original suspicion is spending its force as the public bureaus demonstrate their attitude, time after time, in cases where there are labor disputes. President Gompers, of the American Federation of Labor, writes me that the investigation of the public bureaus, ordered by the Executive Council of the Federation, has not been completed. While the public bureaus are investigating the conduct of the private agencies, they themselves are being subjected to a critical examination by our leading national labor organization.

In conclusion, it seems clearly evident that the usefulness and competence of the public bureaus have increased during the past two years.[15] Most of the road is still ahead, and the obstacles are many. The important steps forward, after a fair civil service is provided for, will logically depend on a kind of round-robin, beginning and ending with the legislature. This body must be influenced, in the first place, to vote enough funds to attract a competent and trained personnel. The high salaries will tend to relieve the service of its burden of petty political workers. The efficient performance of the new personnel will win the confidence of the people—employers and employes alike—and make inexpedient the subsequent use of the office for partisan politics, as was illustrated in the attempted dismissal of Mr. Hennesey in Cleveland.[16] Finally, through the

[15] Kentucky and Nebraska still present very poor examples of a state's attempt to serve employer and unemployed. Maryland has reorganized its system, and made some improvement over last year—not a very difficult task. South Dakota's system is almost worthless. Nebraska, on account of lack of funds, confines its efforts to assisting with the harvests. The new bureaus, established in Pennsylvania and California, are first class.

[16] Mr. Hennesey, formerly superintendent of the Cleveland city-state office, rendered such service to his city in the winter of 1914–1915 that he gained a wide popularity, and distinction for efficiency. Being a state officer there was a strong intimation from Columbus of his dismissal, shortly after the politics of the state administration changed in 1915. Immediately, there was such organized protest on the part of the people of Cleveland that all mention of a change in the city-state employment office ceased. Mr. Hennesey resigned, voluntarily, in 1916, to accept the secretaryship of the Cleveland Builders' Exchange.

pressure of public opinion, those interested in the work will be able to induce the legislature to advance additional funds for further expansion and more intensive work. This plan represents the safest, and probably the ultimate method for eliminating the private agency and developing the functions of the public bureaus. While this method is disposing of the undesirable element among the private agencies, the municipal, state and federal officers in charge of such work can advance their own interests and those of the public by inducing the first class private agencies to become a part of the public system.

A FEDERAL LABOR RESERVE BOARD FOR THE UNEMPLOYED

OUTLINES OF A PLAN FOR ADMINISTERING THE REMEDIES FOR UNEMPLOYMENT

By William M. Leiserson,

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In dealing with unemployment the point has been reached where we must have administrative machinery to put practical remedies into effect. The theoretical analysis of the problem is complete. The general nature of the facts is well known, the evils are undisputed, the principal remedies have been logically deduced and their soundness has been established. Says Sidney Webb, the London publicist who has given years of study to the subject of unemployment, "*the problem is now soluble, theoretically at once, and practically as soon as we care to have it solved.*"[1]

The remedies for unemployment are not new. Napoleon instructed his ministers to prosecute public works to keep labor employed at home. Horace Greeley advocated public employment bureaus in the New York *Tribune* more than sixty years ago. And labor unions have been paying out-of-work benefits for more than a quarter of a century. These same measures—labor exchanges, unemployment insurance and the prosecution of public works in times of depression—are the remedies advanced by all intelligent students of the subject today.

Why then have we made so little progress toward putting these well-known remedies into effect? Why must the unemployed suffer every winter and why are we overwhelmed by the problem every ten or fifteen years? It would seem to be because we have given too little attention to the administrative measures necessary to make the remedies for unemployment practical and effective. Legislators have hesitated to enact laws that contained no machinery to make the remedies work out successfully. Especially was this true after

[1] Preface to a Bibliography on *Unemployment and the Unemployed* prepared by F. Isabel Taylor, London, 1909, p. vii. Mr. Webb together with his wife Beatrice Webb played a most important part in working out the comprehensive system of labor exchanges and unemployment insurance now in operation in Great Britain.

several states had enacted employment office laws which failed to accomplish their purposes.

When the British Royal Commission on the Poor Laws reported in 1909 that "it is now administratively possible . . . . to remedy most of the evils of unemployment, to the same extent, at least, as we have in the past century diminished the death rate from fever," it had available plans for labor exchanges and unemployment insurance with the details of their administration well worked out. And it was not long after the commission reported that the plans were adopted by Parliament. In this country we have had many investigations of unemployment but the reports have usually contained recommendations of a most general nature with little attention given to describing the administrative machinery necessary to put remedies into practical effect.

When Congress undertakes to act on this most perplexing problem it will want to know not so much that labor exchanges, insurance, etc., are advocated to relieve distress from unemployment, but rather just how these measures can be practically and successfully administered. In the hope of meeting the need for such information in part at least, we attempt to outline here the structure and organization of a national labor reserve board and to describe the manner in which such a board might apply the principles and administer the remedies which a century of investigation and analysis of unemployment has proved necessary and desirable.

WHY A LABOR RESERVE BOARD?

The first question that might well be asked is, "why should this administrative organization take the form of a labor reserve board? Is the labor market so analogous to the money market? Can the labor supply be contracted, expanded and shifted around in the country to meet varying needs, as money and credits can be?

The answer is that, while the problems of the labor market are not exactly analogous to the problems of the money market, there is a fundamental similarity. Both are problems of irregularity of employment, the one of capital, the other of labor. The main reason for advocating a labor reserve board is that the Federal Reserve Board already in existence is an administrative machine created for the purpose of dealing with fluctuations, with varying, irregular demands for capital. The problem of unemployment is also a prob-

lem of fluctuations, of irregular demands. Although labor is essentially different from capital, and a labor reserve board may have to do quite different things from the financial reserve board, nevertheless the administrative organization for dealing with irregular and fluctuating demands for labor will have to be similar to the organization that deals with fluctuations for money and credits.

To appreciate the comparison it must be understood that unemployment is not a problem of a superfluous army of workers beyond the country's needs. Every careful student of the subject has pointed out that the unemployed are a necessary labor reserve, *irregularly employed* and *not permanently unemployed.* The progress of industry, improvements in machinery and methods, seasonal trades and the recurrence of prosperity and depression make this reserve necessary and inevitable. There could be no industry as we know it and no industrial progress without such a reserve, any more than there could be safety from fire if there were no firemen waiting for the call whenever it should come. And if we banished half of our wage-earners today the other half would soon arrange itself in such a way that at any given time some would be working and others would be waiting—unemployed. These reserves, however, are temporarily, not permanently, out of work. At any given time the unemployed are but a sample of the reserves. The unemployed man, as one authority puts it, is an industrial factor, not a parasite upon industry.[2]

Statistically this irregular employment is represented by the fluctuating line showing percentage of workers unemployed. "Can you see in your mind's eye," asks Mr. Paul Warburg, a member of the Federal Reserve Board, "the curve representing the fluctuations of our past interest rates? You will find it a wild, zigzag line rapidly moving up and down between more than one hundred per cent and one per cent. Teach the country to watch that curve in the future,

[2] The picture we commonly have in our minds about unemployment is the cartoonist's caricature—a long line of hungry hoboes waiting for meals and lodging—"Our Standing Army." But this does not accurately describe the problem. A truthful illustration is that recently published in a report on the Unemployed in Philadelphia (*Steadying Employment*, by J. H. Willits, Supplement to *The Annals*, May, 1916). This shows a revolving platform with working men being constantly thrown off and jumping on again, and bearing the legend "The Indistrial Roulette Wheel—Off Again—On Again—Fired Again."

the straighter the line, the smaller its fluctuations, the greater will be the beneficient effects of our system."[3]

What is it, then, that the reserve board is doing? It is trying to regularize the employment of capital, to remove fluctuations and to make it more steady. Look at any chart showing the curve of employment and you will find a similar zigzag line fluctuating between more than forty per cent unemployed and a minimum of about three per cent. The recurrence of busy and slack seasons in different industries and the industrial cycle of prosperity and depression which show themselves in the employment curve are paralleled in charts published by the Monetary Commission showing fluctuations in interest rates. And if we look to the conditions which the United States Monetary Commission found in the money market, we may see that the reasons given for the creation of a money reserve board will also hold for a labor reserve board.

THE MONEY MARKET

The Monetary Commission reported as follows:

1. We have no provision for the concentration of the cash reserves of the banks and for their mobilization and use wherever needed in times of trouble. Experience has shown that the scattered cash reserves of our banks are inadequate for purposes of assistance or defense at such times.

2. We lack means to insure such effective coöperation on the part of banks as is necessary to protect their own and the public interests in times of stress or crisis. There is no coöperation of any kind among banks outside the clearing house cities. While clearing house organizations of

THE LABOR MARKET

Could not this be paraphrased to read?

1. We have no provision for the concentration of the labor reserves of the various industries, and for their mobilization and use wherever needed. Experience has shown that the scattered labor reserves maintained by each employer and each industry make for duplication and unnecessarily large reserves.

2. We lack means to insure such effective coöperation of employers and employment agencies to protect the interests of the unemployed as well as of the public. There is no coöperation of any kind among employers or employment agencies except where the former main-

[3] The Federal Reserve System.

banks have been able to render valuable services within a limited sphere . . . . the lack of means to secure their coöperation or affiliation in broader fields makes it impossible to use these . . . . to prevent panics or to avert calamitous disturbances affecting the country at large.

tain a blacklisting bureau and the latter get large enough fees to divide between several labor agents. While state labor departments have been able to render valuable services within a limited sphere where they have had a central office for several public employment bureaus, the lack of means to secure their coöperation on a national scale and the limited nature of their activities, make it impossible to use these to mitigate the effects of great industrial depressions.

3. We have no power to enforce the adoption of uniform standards with regard to capital, reserves, examinations, and the character and publicity of reports of all banks in different sections of the country.

3. We have no power to enforce the adoption of uniform standards with regard to records, methods of management, publicity and reports of all employment agencies public and private in different sections of the country.

4. The narrow character of our discount market, ... results in sending the surplus money of all sections, ... to New York, where it is usually loaned out on call on stock exchange securities, tending to promote dangerous speculation and inevitably leading to injurious disturbances to reserves.

4. The narrow character of our market for labor (depending on the connections which the individual worker can himself establish) results in sending the labor reserves of all sections to New York, Chicago and other very large industrial centers, where it is usually possible to pick up an odd job when regular employment fails. This tends to promote parasitic industries based on cheap labor and inevitably leads to under-employment and exploitation of the surplus labor reserves.

5. We have no effective agency covering the entire country which affords necessary facilities for making domestic exchanges between different localities and sections, or which can prevent disastrous disruption of all such exchanges in times of serious trouble.

6. We have no instrumentality that can deal effectively with the broad questions which, from an international standpoint, affect the credit and status of the United States as one of the great financial powers of the world.

7. Our system lacks an agency whose influence can be made effective in securing greater uniformity, steadiness and reasonableness of rates of discount in all parts of the country.

5. We have no effective agency covering the entire country which affords necessary facilities for directing our migratory workers to different localities and sections, or which can mobilize the public work of the country to prevent disastrous industrial crises.

6. We have no instrumentality that can deal effectively with the industrial cycles of prosperity and depression, international in their scope, the markets and labor demands of the United States as one of the great industrial nations of the world.

7. Our system lacks an agency whose influence can be made effective in securing greater uniformity and steadiness of employment, and reasonable rates of pay for labor in all parts of the country.

There is the parallel so far as it can be drawn. Analysis of the labor market shows that labor reserves are made unnecessarily large and unemployment increased by each employer keeping a full reserve for himself. If provision were made for mobilizing the reserves at central labor exchanges the same workers might be used by different employers and the total reserves could be reduced, just as banks connected with the federal reserve system now keep only a fifteen per cent cash reserve instead of twenty-five per cent required before the reserve board was established. Private labor agencies are uncontrolled when they operate across state lines. They scatter the labor reserves and exploit the unemployed, while the operations of public employment agencies are restricted to small areas and their influence limited. Industrial depressions are accentuated by

governments cutting off funds for public work in hard times, when an effective national agency might save from prosperous times part of the public work and mobilize all of it in hard times and use it to create demand for labor and thus offset the industrial depression.

WHAT SHALL THE LABOR RESERVE BOARD DO?

We need no more investigating commissions to tell us that the first step in any program of dealing with unemployment must be to organize a national system of labor exchanges. Just as the first work of the Federal Reserve Board was to unite all the banks of the country into one system, so the first duty of the Labor Reserve Board must be to organize all the employment offices of the country into one system of labor exchanges.

But how to organize that national labor exchange system? What sort of a system shall it be—and how administered?

There has been much loose talk about the federal government establishing employment offices, like post offices, throughout the country, or making the post offices do the work of employment bureaus. No federal labor exchange system can be successful that ignores the existence of the state and municipal employment offices. There are now about one hundred of them in more than half the states, and some of them have reached a high degree of efficiency and influence in their communities.[4] For the federal government to duplicate their work or to try to compete with them would seem most unwise. And coöperation or dividing the field between local employment offices conducted by the United States government and others conducted by the states is out of the question until all offices have a common understanding of what their work and their methods should be, and are under the direction of one central agency. The Federal Reserve Board did not establish new local banks. It welded the existing banking institutions into one national organization, while yet allowing them much freedom to develop in their own ways. It is just that sort of a labor exchange system that must be constructed out of the existing employment offices.

The recognition of this has led many people to advocate "clearing houses" for employment agencies to be established by the United States government without giving a definite idea of how such clearing

[4] See *Monthly Review of the United States Bureau of Labor Statistics* and *Bulletin No. 192.*

houses would operate. There is no doubt that a labor exchange system will need district offices, similar to the twelve federal reserve banks for the banking system. But these cannot be created, cannot have any real work to do until the local offices have been put under national control, their records and business methods standardized, their management made uniform. At the present time they vary so in their organization and methods that neither comparison nor coöperation among them is possible.

To lay the foundations, therefore, and to create the administrative machinery for a labor exchange system, the Federal Labor Reserve Board will establish a central bureau in Washington and build up a force of employes trained in methods of organizing and managing employment offices, in devising and keeping records, in collecting and studying labor market statistics and in supervising the work of local employment bureaus. With this force the federal board can aid states and cities in establishing employment bureaus, help in devising plans of organization for them, assist in installing uniform systems of records and management, and supervise their work to maintain minimum standards of service and efficiency.

As an inducement to state and city employment offices to join the national system, the Labor Reserve Board might give each local bureau a number as a branch of a United States labor exchange, and offer to each bureau which affiliated as a branch and adopted the minimum standards the franking privilege, for its postage, a privilege which is now enjoyed only by the federal offices. Plans are now afoot for grants in aid of vocational education, road building and other matters of national concern. A Labor Reserve Board might recommend federal aid to the states to bring their employment bureaus up to a national standard of efficiency and to induce them to deal with unemployment in conformity with a national plan.

Instead of establishing clearing houses with uncertain duties, the Federal Labor Reserve Board, if it is careful, will create district offices in different parts of the country for the purpose of licensing and regulating private labor agencies doing an interstate business. The purpose of this regulation should be to drive the dishonest agents out of business and to bring the rest under the control of the national labor exchange system until such time as the people decide to keep private individuals out of the employment business entirely. This regulation is an immediate need. There are probably close to 5,000

private labor agencies in the country. In the work of regulation the government officials would get the knowledge and experience necessary to conduct large-scale public labor exchanges, and when both the public and the private offices have been standardized and brought under national control, it would then be plain whether the District Offices could function as clearing houses and just how they should do it.

The essential duty of a system of labor exchanges is, of course, to distribute reliable information regarding labor supply and demand, and to connect the two as quickly as possible. As a means of accomplishing this a *Labor Market Bulletin* of some kind is necessary. Such a bulletin must be designed to overcome the evils that now result from indiscriminate publicity given by newspapers. It is obvious that the genuineness of demands for labor must first be established, but even though the statements of demand are absolutely true, it is none the less mischievous to distribute them indiscriminately through the press or post office. Forty thousand men may really be needed in Kansas, but over 100,000 may respond to the call, unless the traveling in answer to the call is controlled by local employment offices. This has actually happened, and it is for this reason that the American Association of Public Employment Offices has gone on record against the widespread distribution of labor market bulletins.

Instead of such a scheme of widespread distribution, the Federal Labor Reserve Board will therefore issue a bulletin intended primarily for employment bureau officials, just as the *Federal Reserve Board Bulletin* is intended primarily for bankers. From this abstracts will be made for newspapers, but never in such a way as to lead workers to travel to a distant place for work without making certain of an opening there by applying to the local branch of the labor exchange.

OTHER WORK OF THE LABOR RESERVE BOARD

There are other important administrative questions which need consideration.

First among them is the policy of using public work to regularize the labor market. Here again the financial reserve board can offer an example to a labor reserve board.

> The aim of the federal reserve system, to quote Mr. Warburg again, must . . . . be to keep this gigantic structure of loans and investments . . . . both from over-contracting, and, as well, from over-expanding, so that, as the natural and inevitable result, it may not be forced to contract. . . . . Effectively to deal with the fluctuations of so gigantic a total is a vast undertaking. If the task is to be accomplished successfully, it cannot be by operations which are continuous and of equal force at all times, but only by carrying out a very definite policy which will not only employ funds with vigor at certain times, but, with equal determination, will refuse to employ funds at others. . . . . To bring about stability of interest rates, ... judicious withholding, and in turn judicious employment by the Federal Reserve Banks, of their lending power . . . . are necessary.[5]

By such a policy of withholding and offering the Federal Reserve Board, with a lending power of only $600,000,000, is able to steady and stabilize the operations of banks and trust companies with loans and investments amounting to $13,000,000,000.

How much our governments might do to keep the labor market from over-contracting and over-expanding by withholding public work in time of active labor demand and prosecuting such work vigorously in times of depression, we can only guess at until we have a Federal Labor Reserve Board to devise the plan of mobilizing the work of national, state and local governments and of judiciously withholding the prosecution of such work. In England it has been estimated that if 3 or 4 per cent of the public work were saved in prosperous years, to be used in years of depression, enough would be accumulated to make up the reduction in pay roll caused by the depression. How the government may "employ funds with vigor at certain times," and "with determination . . . . refuse to employ funds at others" is a policy which can be successfully determined only by a permanent Labor Reserve Board.

Second, the collection of information regarding the opportunities for self-employment in the United States, particularly on the land. The Labor Reserve Board must study and devise methods and machinery for helping workers to acquire land on easy payments, and for securing small homesteads in suburban districts for city workers. When the factory slows down let the wage-earner have a garden to work. It can be made to supplement his income considerably and may be one of the most effective remedies for unemployment, as Rowntree's study in Belgium has shown. Mr.

[5] *Federal Reserve Bulletin*, March, 1916, p. 103.

Crosser's bill (H. R. 11329) is a step in the right direction when it provides for unifying and harmonizing the duties and powers relating to distribution of labor and land settlement with a view to recommendations for further legislation. But this as well as the work of the National Colonization Board which the bill proposes to create would be much better accomplished by a Federal Labor Reserve Board that administers the fundamental machinery of the labor market, the labor exchanges.

Third, the board must work to prevent trades and industries from becoming overcrowded, oversupplied with laborers. The industries and localities which are growing and in need of labor will be made known and warnings issued against the trades and places which are oversupplied with labor and where unemployment is most prevalent. This service will be connected with the schools to enable them to guide juvenile workers into promising employments; and the immigration service also will be assisted in directing new workers into fields where their labor is needed and in preventing them from lowering standards by overcrowding trades.

Finally the duty of the Labor Reserve Board must be to devise a method of administering unemployment insurance in this country, and to conduct such a system in connection with the public labor exchanges. Until this can be accomplished it will encourage and assist workers to insure themselves against unemployment, help trade unions to establish and extend out-of-work benefits and show public authorities how unemployment insurance can be practically conducted to relieve distress among the workers and encourage policies of prevention of unemployment among employers.

It will be noted that aside from the conduct of employment bureaus the functions of the Labor Reserve Board are stated in the most general terms. The practical details of shifting public work, colonizing unsettled land, helping workers acquire homesteads and guiding young people and immigrants into desirable vocations require further investigation before Congress can legislate. The law can create the labor-exchange machinery at once. For the rest the Labor Reserve Board will conduct a permanent laboratory and be the responsible authority for studying unemployment, devising remedies and making recommendations to Congress, just as the Reserve Board handles new problems in the money market.

How the Labor Reserve Board will be Organized

We can hardly hope that our government will do as it did with the money question, hire a board of five highly trained men and pay them each $12,000 a year to work out the problems of the labor market. At least, not till labor is much more powerful in the councils of the nation than it is at present.

A good beginning, however, can be made by making the Secretary of Labor and the Commissioner of Labor Statistics ex-officio members of the Federal Labor Reserve Board, just as the Secretary of the Treasury and the Comptroller of the Currency are members of the financial reserve board. In addition the Secretary of Commerce, as representing the other side of the labor bargain, should be appointed and also the Secretary of Agriculture. To these can be added a Commissioner of Employment appointed by the President. The five men will then constitute the Federal Labor Reserve Board of which the Commissioner of Employment will be chairman. The relation of the board to the Department of Labor should be the same as that of the Federal Reserve Board to the Treasury Department, independent and free to experiment and strike out along new lines, but always in close connection with the department that handles all labor problems.

As a beginning toward building up the expert force a Director of Labor Exchanges should be appointed which later might be followed by a Director of Public Works, Director of Unemployment Insurance, etc. When the organization is fully developed these officials might themselves be the Labor Reserve Board, but for a beginning the other form of organization would be sufficient.

The Director of Labor Exchanges should be Secretary and chief responsible officer of the board. He should also act as Secretary of the Advisory Council, which must be an important part of any labor reserve system, the organization and functions of which we must now consider.

Advisory Council

No plan of dealing with unemployment can expect to succeed which does not recognize the conflict of interests between labor and capital. The neglect of this in the organization of our state employment bureaus has been largely responsible for their ineffectiveness. If we do not recognize the struggle frankly and bring it out into the

open under public scrutiny, it will go on in the dark behind our backs, each side seeking to gain control of the labor reserve machinery to promote its own purposes.

In the organization of the financial reserve board there were three interests to be considered. There were first the business men and the bankers; and the authorities representing the public constituted the third interest. The Federal Reserve Act met the problem of these conflicting interests by creating an Advisory Council composed of one member selected by the Director of each Federal Reserve Bank. These directors in turn were divided into three classes, one-third of them representing the banks in the reserve district, another third representing the business men, and the other third appointed by the Federal Reserve Board to represent the public.

Similarly the Labor Reserve Board must have a federal Advisory Council to represent conflicting interests. The organized employers and the organized workers of the country should each be called upon to nominate representatives, and the states and cities which conduct public employment bureaus might be given the same privilege. Three or five members from each of these interests appointed by the President would constitute the Advisory Council to meet in Washington four times a year or oftener with the Labor Reserve Board just as the Advisory Council of the financial reserve system meets with its board.

The council will advise and assist in all matters dealt with by the Labor Reserve Board. Questions of policy, proposed investigations and all rules and regulations for the administration of the labor reserve system would be submitted to this council. No rule or policy will be adopted until it has first been considered by the council. The board need not necessarily be bound by the action of the council, but the votes and the opinions of the interests represented should be recorded and made public, so that policies which may become political questions can be kept in the open, decided by the people and by Congress, and not left to the manipulation of one side or the other.

An additional, most important function of the council would be to aid in the selection of the staff that is employed by the board. The staff, of course, will be in the classified civil service, but a prime qualification of the officials must be impartiality as between labor

and capital. Only such candidates should be placed on the eligible lists as have the confidence of the representatives of labor and capital on the Advisory Council. The ratings that these representatives give must be made a part of the examination, which necessarily will consist largely of oral interviews.

This form of civil service is to be applied not only to subordinate employes, but to all officials of the labor reserve system including the Director of Labor Exchanges. These officers have no political policies to decide and should have a secure tenure of office so that they can make a career of the service and acquire the knowledge necessary to handle the complicated problems with which they will have to deal. In recent years the classified service has been extended with remarkable success to include very high grade positions, and the experience of states like Wisconsin and New York where the directors of the labor exchanges are in the classified service argues for the adoption of a similar plan in a federal employment system.

CONCLUSION

All these questions of administrative detail are important, because, as we noted at the beginning, we have reached the point in dealing with unemployment where the theoretical questions have been solved and the principles of practical administration must now be emphasized. This most important work has been flagrantly neglected by economists and social workers alike. We shall be years in getting anything like an adequate plan of dealing with unemployment unless we begin at once to study the detailed problems of administration and to train men who will be able effectively to administer the remedies.

Back in 1892 and 1893 we had mass meetings of the unemployed, work-shops, soup houses, committees of all kinds and hunger parades. Interest in unemployment was aroused in every city of the land. But what was left of it when the depression passed away? How much of the result could be used in the hard times of 1913 and 1914? Nothing permanent was created. And when the last crisis came along we had the same parades, the same committees, work-shops and soup houses. Oh yes! And we added the "Hotels de Gink"!

And what have we as a result of all this last agitation? Only some improved and efficient public employment bureaus, in New

York, Ohio and Illinois. But the reason we have even these meager results is because some employment officials had seen how little they knew about running their bureaus and had organized a national association which worked out details for proper and successful administration of the bureaus. The agitation when harnessed to their practical plans brought some real results. But what else of permanent accomplishment for the future can we point to? Most of the steam went off in the air—lost—because we had nothing definite which we could make drive.

Let us create the machinery of a Federal Labor Reserve System now, and when the next wave of unemployment comes it may drive this machinery toward a solution of the problem.

THE EXTENT OF TRADE UNIONISM

By Leo Wolman,
University of Michigan.

The quantitative analysis of phenomena is assuming in the study of the science of economics a position of increasing importance. Recognition is at last, if grudgingly, being given to the fact that discussions of the influence of economic forces and tendencies are of great or of little value in proportion as there exists some numerical measure of the strength or extent of these forces. Particularly is this the case where the discussion is concerned with the intricate problem of tracing the influence of such an institution as modern trade unionism. A prerequisite to an intelligent study of the labor movement consists in an accurate statistical estimate of the extent and ramifications of the movement. While it is of course true that the influence of a movement is frequently out of all proportion to the numbers participating in it, as in the case of the Industrial Workers of the World, a knowledge of the statistics of increase and decrease in membership will even in such a case throw considerable light upon the successive rise and decline in influence.

I

The problem of determining the extent of trade unionism in a country can be attacked first by registering the absolute membership of labor organizations and then by calculating the ratio of this membership to the industrial population of the country.[1] The first step, because of the present disorganization in the collection of this form of labor statistics in the United States, necessitates laborious compilation from a large number of scattered sources. Beyond this, although some slight difference of opinion may exist as to the definition of a trade union and hence as to the statistical limits of the study, the problem is one of mere enumeration. With regard, however, to the calculation of the relative extent of trade

[1] For a comprehensive discussion of this whole subject see the author's article on "The Extent of Labor Organization in the United States in 1910," *Quarterly Journal of Economics*, May, 1916, p. 486.

unionism, the difficulties are many and real. If a trade union be defined as a voluntary organization of wage-earners, an accurate index of the numerical extent of the trade union movement would be the ratio of the total membership of trade unions to the wage-earning population. Unfortunately, no attempt is made in the census to distinguish a wage-earning class; and previous to the publication of the *Census of Occupations of 1910*, which contains a much more detailed analysis of the occupational distribution of the working population than can be found in any earlier census, not even a reliable estimate of the extent of a wage-earning class was feasible. With the material that is now available, however, it is possible, by making rough deductions of those groups included in the *Census of Occupations of 1910* that are clearly comprised by members of the employing and salaried classes, to obtain a reasonably accurate basis for calculating the extent of trade unionism among the wage-earners of the United States.

The total membership of trade unions in the United States in 1910 was 2,116,317; in the same year the total number of persons gainfully engaged in industry in this country was 38,134,712. The members of trade unions, therefore, constituted in the last census year 5.5 per cent of the industrial population of the United States. This percentage, however, appreciably underestimates the strength of the trade union movement because of the inclusion, in the aggregate of persons "gainfully engaged" in industry, of members of the employing and salaried classes. By combining those groups in industry that are composed of members of the employing, salaried and fee-receiving classes, such as merchants, managers and clergymen, a total for this group of 10,939,808 is obtained. Accordingly, the wage-earning class in 1910 can be said to have numbered 27,194,904 persons; and of this number 7.7 per cent were members of labor organizations. Adherents of the labor movement would maintain that this last index, based upon a group that includes such wage-earners as agricultural laborers, domestic servants, and clerks, was still not fairly indicative of the actual strength and extent of trade unionism. They would use as a basis for the calculation of the percentage of organization that group of wage-earners which the modern trade union makes definite and sustained efforts to organize. Since no such efforts have been made, until the present at least, to organize agricultural laborers and domestic servants, because

of their condition of individual isolation, and because the social and economic status of such employes as clerks and stenographers precludes any large extension in organization among that class of workers, it is contended that a fair estimate of the extent of labor organization can be based only upon a group in which these classes are not included. Furthermore, practically every trade union has established an age limit below which it will not admit workmen in the industry into membership in the union. The average lower age limit for all trade unions may be roughly stated at twenty years. When all persons engaged in industry as agricultural laborers, in domestic and personal service, in such occupations as stenographers and saleswomen, and also persons below the age of twenty be combined and the total for this group be deducted from the 27,000,000 wage-earners in the United States in 1910, a resulting group of 11,490,944 persons, who may be characterized as constituting a potential trade union membership, is obtained. And with this class as a basis, the degree of organization is found to be 18.4 per cent. Accordingly, the most conservative survey of the situation would indicate that in the United States in 1910, 92.3 per cent of the wage-earners were unorganized; whereas, the most liberal estimates would show that 81.6 per cent of those persons who are susceptible of organization were without the trade union.

The foregoing statement must be qualified in one important respect. A large factor in the relative extent of trade unionism is the territorial distribution of the working force of the nation. The influence upon the growth of labor organizations of the urbanization and concentration of industry is well known to every student of industrial history. It is generally true that, where workmen live in thinly settled communities and work in small establishments, the rise and growth of trade unions is long retarded. It is this condition that, to a great extent, explains the surprisingly low percentage of organization. Large numbers of carpenters and bricklayers, for example, are to be found in the rural sections of the country. Even though such workmen may constitute potential competitors of laborers in the urban districts, the union finds it not only difficult but also undesirable to organize them because of the expense of propaganda and of organization. If, therefore, it were possible to calculate the extent of organization among workmen living in cities of 10,000 population and over, the available data on the subject lead

one to believe that the percentage would be much higher than for the country as a whole.[2]

II

The trade union movement is naturally made up of relatively strong and relatively weak component parts. In some industries the unions have attained an absolutely and relatively large membership, while in others the degree of organization is so small as to be almost negligible. It would be desirable, therefore, to classify the various industries according to the strength of the organization, with a view to throwing some light upon the causes of low and high percentages of organization. The absence of practically any organization among agricultural laborers, and among those employed in domestic and personal service and in clerical service has already been noted.[3] The subsequent discussion will be limited to the mechanical and manufacturing, extractive, transportation and building industries. For the purposes of analysis the industries are classified into three groups. The first group is composed of the highly organized industries or those having an organization of over 30 per cent; the second group contains those industries that are fairly organized and in which the extent of organization lies between 15 and 30 per cent; the last group of poorly organized industries is comprised of those having an organization of less than 15 per cent. The following table presents the industries of the first group:

Name of industry	Number of persons in industry	Percentage organized
Breweries	55,413	88.8
Marble and stone yards	55,558	45.4
Printing and bookbinding	249,456	34.3
Glass factories	83,641	34.2
Mining	834,456	30.5
Total	1,278,524	

Of the five industries included in this table, three are organized along occupational lines and two industrially. In the marble and

[2] George E. Barnett, "Trade Agreements and Industrial Education," *Bulletin No. 22*, National Society for the Promotion of Industrial Education, p. 3.

[3] There were approximately 6,000,000 agricultural laborers in the United States in 1910; only several hundred were members of trade unions. Of the 5,265,818 persons employed in domestic and personal service and as clerical workers, less than 2 per cent were organized.

stone yards, printing and bookbinding industry, and glass factories the ratio of the number of skilled to unskilled workingmen is comparatively high; and the high degree of organization in these industries is to be explained by the high percentage of organization among the skilled workmen. In mines and breweries, however, although the relative amount of unskilled labor is somewhat greater than in the first three cases, the adoption of the industrial form of organization, together with other factors, has effected as high a degree of organization as where the ratio of skilled workmen is somewhat greater. The unusually high percentage in breweries is attributed to the effective use by the United Brewery Workmen of the boycott as an organizing device.

In the next table are given those industries that show an organization from 15 to 30 per cent:

Name of industry	Number of persons in industry	Percentage organized
Cigar and tobacco	170,904	27.3
Potteries	26,369	21.9
Transportation	2,862,260	17.3
Clothing	608,892	16.9
Building trades	2,444,395	16.2
Total	6,112,820	

The facts elicited in the discussion of the first table are for the most part confirmed by the evidence contained in the second. Defining an occupation in the broader sense as including closely related forms of labor, it is not improper to state that the unions claiming jurisdiction over the various operatives in each of the foregoing industries are all trade or occupational unions. Furthermore, the ratio of unskilled to skilled workmen is appreciably higher in this than in the first group of industries. Whatever organization does exist is to be found in the main among the skilled workers. This is notably the case in the building and transportation industries where such skilled workmen as locomotive engineers and bricklayers are highly organized whereas the unskilled maintenance of way employes and building laborers are totally unorganized. In the clothing industry there is still room for a considerable extension of organization even among the skilled or semi-skilled operatives; here, however, the policy of the union and the changing character of the labor force in the industry have constituted serious obstacles to increased

organization. In the manufacture of cigars and tobacco, also, the problem has been not only one of organizing unskilled workers and of opening the union of the skilled to the unskilled, but the difficulty of organizing the latter has been greatly enhanced by effective opposition to unionism from the American Tobacco Company.

The last table is composed of those industries that have an organization of less than 15 per cent:

Name of industry	Number of persons in industry	Percentage organized
Leather	293,035	14.5
Electric light and power	252,883	14.3
Lumber and furniture	597,174	10.7
Iron and steel	1,746,387	9.9
Food and kindred products	299,176	7.6
Quarrying	85,919	7.3
Metal	320,041	4.7
Textile	800,251	3.7
Paper and pulp	101,797	2.6
Chemical and allied industries	73,585	0.4
Total	4,570,248	

The high correlation between skill and extent of organization is again the most striking feature of this table. Where trade unionism is most extensive, the great bulk of trade unionists are skilled workmen. The iron and steel industry, for example, shows an organization of 9.9 per cent; but practically all of the organization exists among such skilled workmen as iron molders and pattern makers. The unskilled laborers in the steel mills, over whom the Amalgamated Association of Iron, Steel, and Tin Workers claims jurisdiction, have an organization of probably less than 2 per cent. The same situation exists in the leather, lumber, textile, paper and chemical industries. Another, and perhaps a more important, element responsible for the lack of organization in several of these industries is the concentration of ownership which places in the hands of the managers of the industry various means for combating the growth of organization. The persistent opposition of the United States Steel Corporation, the International Paper Company, and of the American Woolen Company to trade unionism has been as potent a factor in hindering the organization of their employes as the presence in these industries of large numbers of unskilled laborers

The American labor movement, however, is almost completely, in the strict sense of the term, a trade union movement. Only in recent years has there been any palpable extension in the direction of industrial organization. The extent to which the industries of the country are organized does not for this reason indicate with the greatest accuracy the success of labor organizations in organizing those workers over whom the individual organizations claim jurisdiction—that is, those workingmen who are employed in well-defined and in, for the most part, skilled trades. The foregoing analysis should accordingly be supplemented by a survey of the extent of organization in the more important occupational or trade divisions of industry. Unfortunately, the available material does not permit of an exhaustive treatment, but it is possible to obtain a sufficient number of occupations to warrant guarded generalization.

Excluding from the discussion those occupations in which there was no organization, of the thirty-three trades concerning which statistics were obtainable, five—railway conductors, electrotypers, brakemen, locomotive engineers, and stonecutters—were from 50 per cent to 100 per cent organized. In the next group of occupations, from 30 to 50 per cent organized, were brick masons, printers, locomotive firemen, mail carriers, molders, pattern makers, plasterers, potters, and woolsorters. The third and largest group, comprised by trades from 15 to 30 per cent organized, included bakers, barbers, bartenders, bookbinders, carpenters, coopers, loomfixers, metal polishers, painters, plumbers, switchmen, tinsmiths and woodcarvers. And in the final class, with an organization of less than 15 per cent, were blacksmiths, brickmakers, glove workers, machinists, teamsters and waiters.

In practically all occupations the percentage of organization is higher than in the various industrial divisions; and this is the natural result of the occupational character of the typical American labor union. Where these organizations have expended the greatest efforts, they have met with the most signal success. Beyond this, however, differences in organization can as before be explained by the varying proportions in different industries and occupations of skilled and unskilled workmen.

A summary of the situation in 1910 would indicate that the small percentage of organization is due primarily to four factors: 1. The great bulk of the unorganized workers live in small towns and

rural districts where their inaccessibility and dispersion make organization both difficult and, if not undesirable, at least not pressing. 2. Of almost equal importance as a problem of organization is the unskilled worker. By reason of the large supply of unskilled labor and the ease with which it may be replaced, organization of the unskilled has, up to the present at least, made little progress. 3. A somewhat greater success in organizing the unskilled laborers seems to have been attained by the use of the industrial form of organization than by the trade union. It should be noted, however, that, although the majority of American unions are nominally occupational organizations, many are rapidly assuming the character of industrial unions. 4. Finally, the concentration of ownership, combined with a hostility to labor organizations, has constituted in most cases an insurmountable barrier to the labor organizer.

III

Trade unionism has in this country made little progress in organizing woman labor. The temporary character of the labor of women, their youth, and the fact that in the great majority of instances their wages are designed to supplement the family income have all constituted serious obstacles to their organization.[4] Accordingly, of the 8,075,000 women "gainfully engaged" in industry in the United States in 1910, 73,800 or only 0.9 per cent were members of labor organizations. And if deductions, similar to those made above, are made of those women engaged in employing and salaried positions, in agriculture, domestic and personal service, professional service, and as clerical workers, a residuum of 1,819,741 women, having an organization of only 4.1 per cent, is obtained. In only one industry is there what might be considered a relatively high percentage of organization; of the 2,407 females employed in the liquor and beverage industries, from 20 to 30 per cent were members of the union. In the clothing industries, where the number of female workers is large, organization ranges from only 10 to 15 per cent. The same is true of the more important occupations in which there are large numbers of female employes. The highest percentage of organization in all occupations is among the bookbinders of whom

[4] For an authoritative account of the characteristics of woman labor, see C. E. Persons, "Women's Work and Wages in the United States," *Quarterly Journal of Economics*, February, 1915, p. 201.

less than 20 per cent are organized. It is probable that since 1910 the proportion of organized female labor has increased rapidly. In the period from 1910 to 1913, for instance, the female membership of American unions increased more rapidly than their total membership. One explanation for this disproportionate increase is, of course, to be ascribed to the small number of female unionists in the basic year of 1910. It is still true, however, that a significant factor in the increase has been the organization of women in industries in which the trade union has for the first time secured a foothold among the female employes.

IV

Of perhaps greater interest and importance than the ascertainment of the extent of labor organization in any one year would be the determination of the relative growth of organization over a long period of years. In the only exhaustive study of the growth of labor organization in this country,[5] Professor Barnett finds that from 1897 to 1914 the membership of American trade unions increased from 444,500 to 2,674,400; the maximum membership in this period being 2,701,000 in 1913. By using the method of interpolation, he calculated the industrial population in the years 1897 and 1914. With these as a basis, the 445,000 trade union members in 1897 were seen to constitute 1.66 per cent of the number of gainfully occupied persons in that year; whereas, in 1914, the 2,674,400 trade unionists constituted 6.28 per cent of the gainfully occupied. In the period under discussion, therefore, the trade unions showed a substantial relative as well as an absolute increase in membership. The relation between the growth in membership and the growth in the number of wage-earners can unfortunately be calculated for only the census years. Here, too, Professor Barnett has roughly calculated the wage-earning population in the United States in 1900 and 1910; in the former year the trade union membership was four per cent of the number of wage-earners and in 1910 seven per cent of the wage-earners were members of labor organizations.

In the period from 1910 to 1913, it is likely that the increase in the membership of unions kept pace with the increase in the number of wage-earners. The industrial depression in 1914 caused

[5] George E. Barnett, "Growth of Labor Organization in the United States, 1897–1914," *Quarterly Journal of Economics*, August, 1916, p. 780.

a significant decrease in membership. Since 1914 there has probably been a large absolute and relative growth of trade unions, due primarily to the great expansion in industry in this country following the outbreak of the European War. It is well known that in times of industrial prosperity and of sharp demand for labor, the growth of labor organization is rapid; in times of depression, on the other hand, membership either remains stationary or suffers a slight fall. During the last year or more, not only has there been an enormous industrial expansion and a consequent scarcity of labor, but this scarcity has been greatly accentuated by the unprecedented decrease in the volume of immigration. The net effect of these forces should be, first, a large increase in the absolute membership of labor unions and second, a corresponding increase in its growth relative to the increase in the number of wage-earners. That there has been in the last year a remarkable growth in the membership of trade unions is evident from the facts contained in contemporary reports on trade unions; and that the second circumstance is being effected, it is not, in the light of present conditions, unreasonable to assume.

LABOR'S SHARE OF THE SOCIAL PRODUCT

By Basil M. Manly,
Washington, D. C.

The threatened strike of the railroad brotherhoods came very near bringing the American people face to face with the fundamental problem of wealth distribution. In all previous strikes of national consequence the workers have come asking for a living wage or for the maintenance of an accustomed standard of living. But here were four hundred thousand men demanding not a living wage but a larger share—what they termed their fair share—of the social product. They asked, it is true, to have their share partly in increased leisure and partly in higher wages, but none the less the demand was simple and unequivocal.

To any observer in touch with the labor movement in the United States, there are unmistakable signs that in future the demands, not only of railroad employes, but of all classes of workers, will be pitched upon the same level. There will, of course, continue to be justification of demands on grounds of necessity, efficiency and ethics, but the predominant note will be a demand that labor shall have an ever increasing share of the social product,—of the newly created wealth of the nation.

This demand will come not only from industrial workers, but from working farmers, whether tenants or owners. Whether it will tend to include all forms of service performed for salaries and wages, from top to bottom, is a question that it is idle to debate, although there are indications of a strong tendency toward this extension of the conception of labor, notably the unionization of actors and federal employes. With this shift in the basis of labor's demands, it becomes of great practical as well as theoretical importance that the collection and analysis of information regarding the existing distribution of wealth and the study of past tendencies should proceed as rapidly as possible.

In the brief space of this paper I have no intention of entering into any extended discussion of the general facts regarding the present or past distribution of wealth. All that I shall attempt is to present a few figures relating directly to the steel industry, princi-

pally as illustrative of methods of approach to the broader field. Other figures which I have collected indicate that the conclusions which may be drawn from these tables are typical of the entire field of corporate industry.

During the last few years a vast amount of data relating to costs of production has become available. In their crude form these data are almost valueless as indicating labor's share of the product. Usually they relate only to a single process, and any conclusions drawn from them are almost certain to be misleading. But where they become sufficiently complete to permit a product to be followed through completely from the extractive process until a finished form is reached, they become extremely valuable.

This method may be called for convenience that of "cumulative labor costs." It consists simply in following each product through all its stages from the extraction of the raw material to the creation of the finished product, adding each consecutive element of labor costs to those that have gone before, after making due allowance for the waste of material in each step. For example, in making woolen yarn the labor cost of raising, shearing, transporting, cleaning, carding and spinning all the wool that goes into a unit of product and into waste must be calculated and not simply the amount represented by the weight of the finished yarn.

In the accompanying table is shown the cumulative cost of all the labor that enters into the production of a ton of steel bars, known in the industry as "merchant" bars. This includes the labor of mining the ore and limestone, mining and coking the coal, transporting all three to the blast furnace, smelting the raw materials to form pig iron, converting the pig iron to steel ingots by means of the Bessemer process, rolling the ingots to form billets, and finally reheating the billets and rolling them down to form merchant bars. This is the most elaborate process in the steel industry proper, but the total cost of all the labor, involving several men altogether, was only $9.40, or 35.3 per cent of the total integrated cost of production. At the time these costs were calculated merchant bars were selling for $34.75 a ton f. o. b. mills. Labor therefore received 27 per cent of the total value of the product. In this connection it should be remembered that the steel corporation, to which these costs apply, does not buy any raw materials, but mines coal, ore and limestone on its own properties.

CUMULATIVE TOTAL LABOR COSTS OF STEEL INDUSTRY FROM EXTRACTIVE PROCESSES TO FINISHED PRODUCT, 1902 TO 1906

Compiled from Report of the Commissioner of Corporations on the Steel Industry, Part III Full Report on Cost of Production May 6, 1913—Tons of 2,240 pounds are used, except for Coke, 2,000 pounds

Product	Materials	1 Tons of raw material used per ton of product	2 Labor cost per ton of raw material	3 Total labor cost on amount of material used per ton of product 1×2		4 Cost per ton of labor connected with production of product	5 Labor cost in transportation[1]		6 Cumulative labor cost per ton of product 3+4+5	7 Total integrated cost of production per ton	8 Per cent which cumulative labor cost is of total integrated cost 6÷7
							Per ton	Total			
Bessemer Pig Iron	Lake Superior Ores	1.835	$0.45	$0.83	$2.22	$0.77	$0.26	$0.47	$3.68	$12.10	30.6
	Beehive Coke	1.311	.97	1.27			.17	.22			
	Limestone	.500	.24	.12							
								$0.69			
Bessemer Billet Ingots.....	Pig Iron	1.111	3.68	4.08		.57			4.65	15.47	30.0
Large Bessemer Billets.....	Bessemer Billet Ingots	1.111	4.65	5.10		.55			5.71	17.90	31.9
Merchant Bars ..	Large Bessemer Billets	1.111	5.71	6.34		3.06			9.40	26.60[2]	35.3

[1] From tabulation made of total operating expenses set forth in suits before the Interstate Commerce Commission for a number of trains it was ascertained that the wages of crews and helpers constituted 12½ per cent of the entire operating expense. The total rail and lake freight on a ton of ore is given at $2.03 per ton and the freight on coke at $1.36. Twelve and one-half per cent of these rates gives the amount of labor per ton in transportation here stated.

[2] Calculated from book cost by taking integrated costs for Large Bessemer Billets and allowing loss of 10 per cent.

The capital employed in the steel corporation, represented by its stocks and bonds, does not get all of the difference between labor cost and selling price, for there are heavy costs for transportation, and materials for repairs and rebuilding which go to outsiders, although it may be remarked parenthetically that the same interests which control the steel corporation get the lion's share of these "outside" costs.

The group that is principally affected by the contest of labor for a larger share of the product are the common stockholders. Information regarding the actual distribution of the ownership of the common stock is therefore of the greatest interest. In the accompanying table are presented data which show not only the number of stockholders owning each number of shares of United States Steel common stock, but also the approximate amount of stock held by each group. These figures relate to 1911, but the proportions hold true today.

UNITED STATES STEEL CORPORATION

DISTRIBUTION OF COMMON STOCK, 1911

Number of shares	Number of shareholders	Per cent	Value of stock owned	Per cent
1	2,994	8.5	299,400	0.5
2	2,086	5.9	417,200	
3	1,287	3.7	386,100	
4	604	1.7	241,600	
5	2,440	6.9	1,220,000	
6 to 10	6,989	19.8	5,591,200	1.1
11 to 25	6,399	18.1	11,518,200	2.3
26 to 50	4,786	13.6	18,186,800	3.6
51 to 100	3,478	9.9	26,085,000	5.2
101 to 500	2,673	7.6	53,460,000	10.4
501 to 1000	426	1.2	31,950,000	6.3
1000 and over	1,068	3.0	358,945,000	70.6
Total	35,230	100.0	508,302,500	100.0

In considering this table it must be remembered that the steel corporation is always cited as the most conspicuous example of widely distributed stock. This wide distribution as a matter of fact

arises primarily from its policy of selling stock to its employes upon easy terms.

The essential facts to be noted are that the holders of less than twenty-five shares ($2,500 par value) constituting approximately 65 per cent of the total number of stockholders actually owned only 4 per cent of the stock, while the 1,068 stockholders (less than 3 per cent) with more than 1,000 shares owned 70.6 per cent of all the stock.

Essentially the same condition exists in every American corporation. During the past year I have examined nearly 300 stockholders' lists and have found that taking them all together,—big companies and little companies, banks, railroads and industrials—less than 2 per cent of the stockholders owning 1,000 shares or more hold more than half of the entire stock.

It is this concentration of ownership in the hands of a small number of exceedingly wealthy people that will sharpen labor's determination to increase its share of the product. Regardless of any theoretical conceptions of the proper distribution of wealth the struggle will be forced at least until this class, whose wealth is now very largely hereditary, has been shaken out of its position of control.

THE DOCTRINE THAT LABOR IS A COMMODITY

By Edwin E. Witte,
Madison, Wisconsin.

The first sentence of section 6 of the Clayton Act states that "the labor of a human being is not a commodity or article of commerce." This declaration is regarded by labor leaders as the magna charta of the wage-earners. It has been heralded as "the dawn of labor's freedom from industrial feudalism and a state bordering upon industrial slavery."

This sentence was something of an afterthought. It was offered as an amendment on the floor of the Senate by Senator Cummins when the Clayton Act was up for passage. It was accepted without so much as a roll-call, and was thought to represent merely a perfection of the phraseology of the section.

No court has ever held that the labor of a human being is a commodity or article of commerce. In discussing his amendment Senator Cummins said:

> There are a great many opinions which contain discussions of the subject and which will be found to embrace a course of reasoning which, if carried to its logical end, would put labor precisely where you put a bale of cotton or a bushel of wheat; but these reasons have never found expression in any decision. It has never been so decided. I confess that I have shared the apprehension that some students of the subject have—that the courts may do that in the future.[1]

It was to guard against possible future decisions to the effect that labor is a commodity that Senator Cummins offered his amendment, not to overthrow an established legal doctrine.

On the contrary, there are many decisions which recognize the truth expressed in the Cummins amendment, that the producer is not a product, that labor and the laborer are inseparable. Even in the days of slavery, the labor of slaves was not in law a commodity.[2] And in construing anti-trust laws the courts have repeatedly held that a combination to increase wages or the reward for personal service is not a conspiracy in restraint of commerce.[3]

[1] *Congressional Record*, 63d Cong., 2nd Sess., Vol. 51, Pt. 14, pp. 14018–19.
[2] 19 Mo. 225.
[3] 140 Ia. 182, 107 Minn. 506, 33 Mont. 179.

Organized labor's insistence upon legislation like the Clayton Act was due principally to the Danbury hatters' case.[4] In this case, however, there was no suggestion that labor is a commodity. It was charged that the defendants had combined not to monopolize the market for hatters, but to prevent the plaintiffs from freely engaging in interstate commerce in hats. Similarly in all other cases in which the anti-trust laws were invoked in connection with labor disputes, the restraint complained of related to concrete material commodities, not to the labor of human beings.

Organized labor so loudly acclaims the Clayton Act not because of any doctrine that labor is a commodity, but because there is a doctrine that the right to do or continue business is property. Rightly or wrongly, its leaders believe that the Clayton Act, and particularly the Cummins amendment, secures all that the American Federation of Labor sought to gain by the anti-injunction bill which it long championed. This bill provided that federal courts should issue injunctions in connection with labor disputes only for the protection of property rights, and that

> no right to continue the relation of employer and employe, or to assume or create such relation with any particular person or persons, or at all, or patronage or good-will in business, or buying or selling commodities of any particular kind or at any particular place, or at all,

should in such cases be regarded as a property right. Such legislation it was thought would make impossible the issuance of injunctions in labor disputes.

This expectation was not unwarranted. It is a debated question whether injunctions may be issued for purposes other than the protection of property rights, and numerous authorities can be cited both pro and con. In cases growing out of labor disputes, however, interference with property rights has always been alleged. Occasionally interference with the physical property of the complainants was claimed, usually only loss of expected profits. If such expectancies had not been regarded as property but few injunctions could have been issued in connection with labor disputes.

Such expectancies arise from the relations of manufacturers with their customers and with their employes. A firm which has established a reputation for fair dealing can reasonably count upon the continued patronage of its customers. If it has paid fair wages

[4] 208 U. S. 274, 235 U. S. 522.

it likewise can look forward to retaining the services of most of its employes, and to securing other workmen as they are needed. These expectancies have market value; often they sell for more than the physical property. "Property is anything which has exchangeable value"[5]; hence, these expectancies are property.

In cases involving unfair competition, similar expectancies are termed "good-will"; and everybody acknowledges that good-will should be treated as property. Technically good-will can be interfered with only through duplication or simulation, which never is involved in labor cases. But when a court intervenes to prevent the duplication or simulation of a trade name, a brand, or a product, it protects precisely the same expectancy of continued patronage upon which injunctions in labor cases often are premised. What is called "good-will" in unfair competition cases, is included in "the right to do business or to continue business" so often spoken of in labor cases. But the latter right is somewhat broader. Like good-will, it relates to a fair opportunity in the commodity market; additionally, it guarantees free access to the labor market.

The doctrine that the right to do or to continue business is property does not imply that labor is a commodity. Property rights are never absolute, and this property is peculiarly qualified. The courts recognize that workmen who are not bound by contract may quit their employment at any time, both individually and collectively. Though the employer in consequence suffers loss of profits, he has no legal ground for complaint. But when some outsider maliciously interferes with the relations which he has established with his employes, or prevents him from procuring other workmen as he needs them, he can secure an injunction upon the plea that his property rights are being invaded. Similarly the expectancy of continued patronage is enforcible not against the customers with whom friendly relations have been established, but against malicious intermeddlers. The expectancies which grow out of established relations with customers and employes are property, not because such customers and employes are legally bound to continue these relations, but because they probably will do so, in the absence of unfair interference by outsiders.

As an abstract proposition the doctrine that such expectancies are property cannot be criticized. Such expectancies are a reward

[5] 16 Wall. 33, 127.

of honorable and fair dealing. They result from the expenditure of money and effort, and should be regarded as "no less intrinsically property than if the same amount of money had been invested in a stock of merchandise or in a city lot."[6]

The application of this doctrine in concrete cases, however, is subject to many valid criticisms. Undoubtedly it often has been misapplied. Many employers and not a few judges seem to think that all that is necessary to warrant the interposition of equity is to show that there is danger that profits will be reduced. Such a view loses sight of the qualified nature of the property rights in expectancies. The courts are not guarantors of private profits. If expectancies are destroyed as a consequence of the exercise by others of their lawful rights, no wrong has been committed. It follows that employes never should be prevented from quitting work, or from peaceably persuading the workmen who are secured to take their places to join in their strike, though the employer loses all his expected profits. Nor is there anything in the doctrine that the right to do or to continue business is property which forbids workmen from collectively refusing to patronize an unfair employer. This doctrine compels no one to buy who wishes to discontinue his patronage. Nor does it compel every man to be a stranger in action to every other man. Yet this doctrine often has been held to forbid entirely peaceable efforts of workingmen to better their conditions.

The courts, moreover, almost never seem to have inquired whether the expectancies claimed by employers were legitimate. The employers who have come to the courts for injunctions often have been those who pay the lowest wages. Can such employers be said to have any reasonable expectancy of retaining the services of their underpaid employes? Yet the courts often have forbidden all efforts on the part of labor unions to compel such employers to pay the same wages as their competitors. In these cases the courts have lent their aid to the maintenance of profits at the expense of decent conditions of toil. Surely, this is giving property a concept in which it is destructive of human rights.

There is much confusion of thought as to the nature of the right to do or to continue business. Whenever an attempt is made to explain why this right is a property right, it properly is identified

[6] 78 S. E. 482.

with the expectancies which arise through fair dealing. But the courts also say that the "right to carry on business" is property, as is the "right to work." Such expressions obscure the essential elements of investment and service. A claim of property in an expectancy should be recognized only when it has its basis in service of the public.

The courts which do not take this view, as Senator Cummins suggests, "employ a course of reasoning which, if carried to its logical end," would make labor a commodity. If the right of employers to carry on their business as they see fit is in fact an absolute property right, as some cases seem to hold,[7] then the laborer is helpless. What is most surprising, is that the courts which entertain such extreme views try to justify their position upon the ground that it means placing labor upon an equality with property. They develop the thought that the laborer depends for his livelihood upon his labor, and that hence, it is necessary that his right to labor should be regarded as property. But it is significant that such reasoning nearly always occurs in cases in which employers seek the aid of the courts in combating the demands of their employes. The right to work is termed "property" to make the conclusion appear logical, that employers have a property right in keeping down wages. Workingmen derive little or no benefit from the doctrine that the right to do or to continue business is property, nor from its corollary that the right to labor is property. The courts will not protect workingmen from being discharged. Though they lose all the profits which they expected from their employment, they are without redress.

In business law the limitations of property rights in expectancies have been worked out more logically. Good-will, which, as has been noted, relates to much the same expectancies as the right to do or to continue business, is never treated as an abstract right, and is always looked upon as a reward for good service. A monopoly is recognized to have no good-will, precisely because the patronage it enjoys may be due solely to want of choice. Again, the qualified nature of this kind of property is emphasized in business law. When expected profits are lost as a result of fair competition, the courts never intervene. In labor cases, also, it is said that competition is a justification for interference with the ex-

[7] Among others, 147 Ill. 66, 63 Atl. 585, 126 N. Y. Suppl. 949.

pectancies of others; but the conclusion usually is that the defendants do not compete with the plaintiffs. Workingmen who have undertaken a strike are said to have no further interest in the conditions prevailing in the factories they abandoned; and labor unions are almost always regarded as malicious intermeddlers.

Whether a legal doctrine should be retained, depends quite as much upon how it is applied as upon the conclusiveness of its logic. Though the courts give good reasons why the expectancies, to which the right to do or to continue business relates, should be treated as property, the uses to which this doctrine has been put are indefensible. The practical conclusions drawn from it have been altogether one-sided and grossly unjust. This explains the enthusiasm of organized labor for the Clayton Act. It has come to look upon statements, that business is property, and that the right to labor is property, as equivalent to making labor a commodity; and, hence, it believes that the declaration that "the labor of a human being is not a commodity or article of commerce" is its magna charta.

It is doubtful whether the courts will hold that this declaration sweeps away the doctrine that the right to do or to continue business is property. This doctrine does not rest upon the proposition that labor is a commodity. While some cases come quite close to such a theory, it is expressed nowhere. It is worthy of note, also, that during the debates in Congress upon the Clayton Act it was given a much narrower meaning than the labor leaders give to it; and President Wilson, while this measure was pending, stated that it would make no radical changes in labor law. Neither the President nor the members of Congress thought that it would prevent the use of injunctions in labor disputes, or that it would make impossible a repetition of the Danbury hatters' case.

It is to be hoped, however, that the Clayton Act will lead the courts to concede workingmen wider freedom to act collectively. This involves more adequate recognition of the qualified nature of the property rights in expectancies. The right to do or to continue business must be treated similarly to good-will in business law. Claims of expectancies must be tested as to their legitimacy; and it must be recognized that the mere loss of profits because of labor disputes is not sufficient to justify the intervention of the courts.

There is little hope for progress, so long as the courts confine

their attention strictly to precedents and legal theories. Plausible explanations can be given for every doctrine which is met with in trade union law. But both the courts and their critics usually have failed to consider the practical results of the application of these doctrines.

We have not yet heard the last of "the abuse of injunctions" and of "government by injunction." No matter how the Clayton Act may be interpreted finally, injunctions surely will still be issued in connection with labor disputes for many years to come. Similarly, there still will be numerous damage suits growing out of labor disputes. Most cases which involve trade union law come up in the state courts; and but few states have yet enacted legislation similar to the Clayton Act. The "injunction question" is certain further to perplex both the courts and the legislatures. They will find little assistance toward a proper solution of this problem in purely legal discussions. The rights at stake have been threshed out until they are threadbare. In the domain of rights almost everything depends upon the point of departure. If this is the right of workingmen to refuse to work or to purchase, the conclusion is that the losses sustained in consequence of such actions by employers and merchants are incidental. If, on the other hand, the starting-point is the right of employers and of merchants to carry on their business as they see fit, the workingmen's conduct appears as an unwarranted invasion of property rights. The chief value of such discussions is to show how inconclusive is abstract legal reasoning in this field.

The problems dealt with are economic in their nature, and should be considered from this point of view. What is needed most is information about the practical working of legal theories. Article after article has appeared relative to the doctrines which underlie the use of injunctions in labor disputes; but very little about how injunctions are secured, what they prohibit, how they are enforced, and what effect they have upon the outcome of strikes or boycotts. It is questions like these which are vital. This is a time when the law governing controversies between labor and capital is being recast. If a satisfactory law is to evolve, the emphasis must be upon the facts of the present situation, rather than upon abstract reasoning.

EVOLUTION OF LEGAL REMEDIES AS A SUBSTITUTE FOR VIOLENCE AND STRIKES

An historical argument leading up to the settlement of industrial disputes by judicial remedies, arbitrable tribunals and industrial commissions.

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Industrial and International Justice Still in a Primitive Stage

A barbarian may be supposed to be blissfully unconscious of his own barbarity. We regard ourselves as the product of a highly civilized age, yet we take complacently, and almost as a matter of course, many relics of barbarism, notably, public war and war preparations as a method of compelling respect for international rights, and private war and strikes as a method of asserting economic rights. Only a few centuries ago, our barbarous ancestors in England and on the continent of Europe employed private war as a normal method of settling all serious individual wrongs. The slow process of substituting law in place of force and violence, which may be traced in the ancient history of Greece and Rome, and which occured doubtless in still older civilizations, repeated itself almost independently in England, showing that some of the most ancient history may be found in comparatively modern times.

It may prove instructive to trace the gradual evolution of judicial and extra-judicial remedies in a broad and rapid manner, as showing that the only hope of permanent peace is a complete administration of justice by judicial remedies. There is a most interesting analogy here in the legal relations between the various nations and the legal relations between labor and capital. International peace can only be established by a world reorganization for international justice in courts; and industrial peace can only be firmly established by industrial tribunals for the impartial and speedy settlement of labor disputes and the furnishing of adequate remedies for industrial wrongs, individual and collective. This argument would aim to prove that our economic system will have

to provide for economic justice, or pay in violence and bloodshed for injustice.

THE BLOOD-FEUD

In the tenth and eleventh centuries, Englishmen lived mostly without law. In those lawless days, the state could furnish little protection to the individual, and on account of his personal insecurity, a man dared not separate from his kin and stand alone. The blood-feud, or vendetta, gave protection by ensuring speedy vengeance for injury. It is the state of enmity that results between the kindred or *maegth* of a man who suffers injury and that of the injurer. The family or kin ("maegth") is often called the "blood-feud group." In Tacitus, we find that every man was bound to take up the enmities as well as the friendships of his father or kinsman. But already in Tacitus, as in the Anglo-Saxon laws, we find that injuries may be appeased by compositions of cattle or money.[1]

COMPOSITIONS

The system of compositions and wergelds is thus an outgrowth of the blood-feud. The kindred of the slain must demand payment of the *wer* or prosecute the feud. The *healsfang* or first installment of the wergeld was the symbol and price of the restoration of peace. In Alfred's day, it became unlawful to begin a feud till an attempt had been made to exact the established price as amends.

At the end of the Anglo-Saxon period, homicide and other offences had to be settled by compositions, if possible, except that killing was lawful and justifiable in the case of a thief caught in the act, and carrying away the stolen goods, or of an adulterer or outlaw.[2]

LIMITATIONS ON FEUD

When a murder had been committed, the kindred of the accused might first swear him free, if he were innocent. If they were unable to do this and unwilling to pay the wergeld, they had to bear the feud. The Anglo-Saxon feud went on until a number of "murderers or their nearest kindred, head for head" were killed equal

[1] Essays in *Anglo-Saxon Law*, p. 141; Pollock and Maitland, *English Law*, Vol. 1, p. 46.

[2] Pollock and Maitland, *English Law*, Vol. 1, p. 31, 47; Essays in *Anglo-Saxon Law*, p. 144; Holdsworth, *History of English Law*, p. 28, 34, 41.

in value to the "man-worth" of the murdered man. Six ceorls must die for one thegn. The feud was thus strictly limited in time and number, and did not (as is said to be the case in Kentucky) go on for years till whole families became extinct.[3]

GROWTH OF PUBLIC ADMINISTRATION OF JUSTICE

Slowly but steadily, the developing state wrests these rights of police and blood-feud from the hands of the *maegth*. The state gradually assumes the public functions of protection and punishment. Though self-help, private redress, is tolerated by the Anglo-Saxon kings, it is limited as far as possible. The king is everywhere engaged in enforcing composition. The blood-feud is moderated by the system of "bots" to the injured and "wite" to the king for infractions of his "peace." Private vengeance is restrained until public tribunals have passed judgment, and then if composition is refused, the kinsmen are the executioners. Finally the system of private vengeance and reprisals, which the Saxon kings were forced to tolerate, succumbs to the firm hand of the Norman rulers. The king's peace covers all; the public administration of justice supplants self-help and recourse to courts supersedes the recourse to physical force, which is the instinctive method of redressing wrongs.[4]

SURVIVALS OF SELF-HELP

In many cases, we recognize that it is legitimate to exert leverage and extort justice by withholding that which chance, strength, foresight or strategy has put in our possession. If a man owes you money, and funds of his come into your hands, you will probably retain what he owes you rather than trust him to voluntarily pay you what is due. Liens, or the right of detaining property of the debtor already in the hands of the creditor for services rendered thereon, are favored by the law. If you do not have funds of his already can you seize his money or cattle for yourself and keep them until he is compelled to do justice? Distress, or this power of seizing a man's property extra-judicially in satisfaction of a demand, occupied a prominent place in early remedial law and is very ancient among all peoples. But for a man to be judge and executive officer in his own behalf is not to be endured. Distress

[3] Essays in *Anglo-Saxon Law*, p. 145, 147.

[4] Pollock and Maitland, *English Law*, p. 45; Howard's *King's Peace*, p. 7.

is soon overloaded with formalities and confined to a few claims of great urgency. Until recently, however, a landlord, without suit or adjudication, could enter his tenant's premises, seize his belongings, and hold and sell them for the rent, but this harsh and oppressive remedy has practically become extirpated or transformed into the judicial process of attachment or execution. The extra-judicial has developed into the judicial distress. A court must authorize the taking and send an officer to do it.

Self-defense, the defense of possession, the reception of chattels, reëntry on land in the adverse possession of another, the abatement of nuisances, are the principal examples of extra-judicial remedies still permitted by the law under certain conditions, if employed without breach of the peace or unnecessary violence. A man may not kill or wound, however, merely in defense of his property.

STRIKES, LOCKOUTS AND BOYCOTTS

Labor and capital are still largely left to settle their controversies by primitive methods of self-help, such as strikes, boycotts and lockouts, under certain limitations imposed by law as in other extra-judicial remedies. Just what these limitations shall be, is a matter of bitter dispute and litigation. These remedies are difficult to control and go largely on the basis of brute force instead of reason. They are still the ultimate appeal, in spite of their disastrous consequences to the public and to all concerned. Working men have been largely left to extort such economic justice as they could by withholding their labor, using this negative weapon against the weapon of starvation and lockout in the hands of the employer.

SMALL LEGAL RECOGNITION OF ECONOMIC RIGHTS

Labor has been aided to some extent in recent years by legislation as to employer's liability and as to hours and conditions of labor, but the enforcement of such laws has been very inadequate. It is only in legislation, in the public regulations of the statute book, not in the common law, that the economic and social responsibility of capitalists and employers finds expression. The courts, in formulating common law, have not recognized the sphere of economic rights. They have not undertaken the duty of asserting social and collective interests or building up a just social or

economic system. The rights of property, as worked out by common law, are thus individualistic, not social or communal. The complex mechanism of capital and labor is the result of the play of unregulated individualism and self-help in the acquisition of private property. In New Zealand, Australia, Canada and in some of the European countries, some progress is being made in arbitration and industrial courts have been established which attempt to reconcile the conflicting interests of capital and labor on a basis of economic justice.

SELF-PRESERVATION

Where a working man is oppressed, when his legal and economic rights are denied and trampled under foot, he is placed face to face with the practical question "What to do?" Through cowardice, ignorance, or weakness, shall he endure the wrong? Shall he let his rights go trampled under foot by the employer unpunished? Or shall he struggle and obtain better living conditions for himself, and his family, as best he may? The preservation of existence is the deepest instinct of every creature, and to tolerate injustice, as Von Ihering points out in his *Struggle for Law*, is ultimately to forfeit existence. In the beginning, bloodshed and violence were necessary to redress wrongs, and the only security for person, property, or family, was to let other men know that they could not invade any of these rights without attack. Violence seems still the ultimate remedy of working men so long as we have gross inequalities before the law.

PRIMARY DUTY OF GOVERNMENT

The state cannot expect individuals to refrain from the natural and instinctive exercise of private force for self-preservation and the redress of injuries, unless it supplies means to maintain their just rights and also of bringing wrongdoers to punishment. Unless the administration of justice insures a reasonable degree of popular satisfaction and acquiescence, the private justice of mob lynchings, family feuds, the custom of carrying knives and revolvers, violent strikes, syndicalism and sabotage and other manifestations of violence will ensue, which threaten the entire social system. Mankind universally approve of violence which is used to avenge and beat off injustice, if there be no other remedy. Without public justice, superior in power to all offenders, there can be no peace, safety,

sense of security, or mutual intercourse. To establish justice, to secure individuals and society in the enjoyment of their rights, is, next to external defense, the great duty of governments and the principal reason why they are instituted among men.

GROWTH OF ADMINISTRATION OF JUSTICE

The progress of society to a complete administration of justice has been slow and gradual, and it must probably continue to be so in the economic field. The principal stages in the establishment of judicial tribunals as a substitute for violence, self-help and private vengeance, seem to be, first, the furnishing of opportunity for voluntary acceptance and choice of peaceable arbitration, as in international relations, and later, the making of submission of disputes to arbitration more and more compulsory. Naturally, the earliest wrongs to call for remedy, were the so-called trespasses, such as assault and battery, false imprisonment, and the seizing and carrying away of goods from another's possession. Later, remedies are extended for less tangible wrongs, such as defamation, slander and libel, and the non-performance of contracts. It comes to be recognized that it is the king's duty and function to provide some sort of remedy in his courts for every substantial wrong or grievance.

UBI JUS, IBI REMEDIUM

The most vital principle in the growth of law is that represented by the maxim *Ubi jus, ibi remedium.* That is, that a remedy must be given for the violation of every right, or, in other words, that every injury must have redress. As Chief Justice Holt said in the famous case of Ashby against White[5] where an election officer was sued for his refusal to permit a voter to vote, "It were a vain thing to imagine that there should be a right without a remedy, for want of right and want of remedy are convertibles." As was said by Chief Justice Marshall, in the great case of Marbury against Madison, 1 Cranch, 163, "The very essence of civil liberty consists in the right of every individual to claim the protection of the laws, whenever he receives an injury. One of the first duties of government is to afford that protection."

[5] Lord Raymond 938, 1 Smith Leading Cases, 342, 1 English Ruling Cases, 521.

A NEW PROVINCE FOR LAW

These labor controversies involve the interest of all the people in addition to the interest of the opposed forces of employes and employers. Has not the time now come for the recognition of a new province for law and a new set of remedies, and the substitution of the peaceful methods of arbitrations and commissions in place of the violent redress of economic injuries? It is no doubt true that strikes cannot be entirely done away, and that a large measure of self-help must still be recognized in connection with industrial bargaining. But legal remedies must also be provided, at first largely of an optional nature.

Under such a system, it may be justly demanded by public opinion that employers and employes alike shall submit their wrongs and complaints to public tribunals and abide by their decrees. The intervention of an impartial tribunal will require the rational investigation and patient inquiry into the facts of the case. It will afford opportunity for thorough argumentation and calm weighing of the principles of right and justice to be applied. It represents the civilized appeal to reason, instead of the barbarous recourse to arms.[6]

The public now stands aside and lets the parties to an industrial dispute fight it out according to the rules of the game. The state has neglected its duty to provide other means than strikes and self-help for settling these disputes. As Blackstone says in his Commentaries:[7]

> A third subordinate right of every Englishman is that of applying to the courts of justice for redress of injuries. Since the law is in England the supreme arbiter of every man's life, liberty and property, courts of justice must at all times be open to the subject, and the law be duly administered therein. The emphatical words of *magna charta*, spoken in the person of the king, who in judgment of law (says Sir Edward Coke), is ever present and repeating them in all his courts, are these: *nulli vendemus, nulli negabimus, aut differemus rectum vel justitiam* (to none will we sell, to none deny, to none delay either right or justice): "and therefore every subject," continues the same learned author, "for injury done to him *in bonis, in terris, vel persona* (either in his goods, lands, or person), by any other subject, be he ecclesiastical or temporal, without any exception, may take his remedy by the course of the law, and have justice and right for

[6] H. B. Higgins, "A New Province for Law and Order," 29 *Harvard Law Review*, 13.

[7] Book 1, p. 141.

the injury done to him, freely without sale, fully without any denial, and speedily without delay."

In nearly all the states, the constitution declares that every person ought to have a certain remedy at law for all injuries to the person, property, or character; and to obtain justice freely without being obliged to purchase it, completely and without denial, promptly and without delay.[8]

The right to strike is, under our present industrial system, a necessary safeguard and remedy. It is as vain to hope for the total elimination of strikes or lockouts, as for the total elimination of the necessity of self-defense and other forms of self-help. But this hostile, dangerous and wasteful method of enforcing demands ought to be used only as a last resort. If so, some earlier resort must be provided. Society is under an obligation to provide some alternative to this trial by battle, and to make some remedies available for the civilized appeal to reason, instead of the primitive recourse to arms. The aim should not be to prevent strikes at all hazards, but to supply some prompt, competent and impartial tribunal whose decision will ordinarily make them unnecessary, and which will make the public a party to the collective bargaining process.

As Blackstone points out,[9] "Judicial and extra-judicial remedies are always concurrent where the law allows an extra judicial remedy."

Therefore, though I may defend myself or my relations from external violence, I am yet afterwards entitled to an action of assault and battery; though I may retake my goods, if I have a fair and possible opportunity, this power of recaption does not debar me from my action of trover and detinue. I may either enter on the lands on which I have a right to enter, or may demand possession by real action; I may either abate a nuisance by my own authority, or call upon the law to do it for me; I may detain for rent, or have an action of debt at my own option.

The extra-judicial remedy is exceptional. The judicial remedy must be granted wherever a right is invaded.

It is not suggested that there should be an exact likeness between our law courts and commissions or boards for industrial matters. It is true that some industrial and economic rights are capable of definition and judicial enforcement, as, for example, workmen's compensation. One measure imperatively demanded is genuine enforcement of the laws which we now have and the effective recognition of all rights, legal and constitutional.

[8] Stimson, *Federal and State Statutes*, Section 70.

[9] Book 3, p. 21.

But many of the most serious questions which arise relate to continuing future relations between more or less indefinite parties and under various and changing conditions. Mediation and conciliation leading to a just agreement between the parties would seem to be ordinarily the principal remedy, as pointed out by Professor James H. Brewster in an article in a recent number of the *Michigan Law Review*, entitled, "The Comparison of Some Methods of Concilation and Arbitration of Industrial Disputes."[10]

As Professor Brewster points out, under the so-called Erdman-Newman act, mediation and conciliation have proved more advantageous and have been more often resorted to than arbitration. This is not a compulsory arbitration law. So under the Canadian Industrial Disputes Investigation Act, the first object is conciliation, and when arbitration is brought about, public opinion is the sole compelling force. Under the Canadian Act, investigation with a view to amicable settlement of the dispute is the duty of the board. In fact, this investigation is compulsory, and while it is pending there is no suspension of the work. Investigation precedes the strikes or lockouts, instead of following it. Publicity follows investigation, and then, as a last resort, the parties may exercise their rights of strike, lockout, etc. This procedure affords an opportunity of justly determining disputes by reason, rather than by force alone. The chief purpose is to provide means of investigation, discussion, conciliation and publicity and the settlements are in the form of agreements.

Compulsory arbitration, at the present time, seems impracticable and undesirable. Recent amendments of the Compulsory Arbitration Law of New Zealand emphasize its conciliatory and voluntary features. At the present time, our employers frequently refuse even to negotiate with the workers and claim an absolute right to run their business in their own way, and with reference only to their own interests. Where the parties refuse either to bargain or to arbitrate, compulsory official investigation at the instance of one of the parties or of a public official, when public interest demands it, will afford opportunity for getting at the truth and for placing the influence of the public on the side of justice.

In this new system of courts or commissions, the object of the trials will be administrative inquiry and ascertainment of the truth,

[10] *Michigan Law Review*, Vol. 13, p. 185.

rather than the mere preserving of the peace, by furnishing a modern form of trial by combat, conducted by highly paid legal champions. The remedy of the workers for their grievances will no longer lie exclusively in strikes, attended almost inevitably by force and violence, and the law will no longer content itself with attempting to confine labor and capital to "peaceable hostilities" in the fixing of wages, hours and working conditions on railroads and in other industries on which the public is dependent.

THE ADVANTAGES AND DEFECTS OF COMPULSORY ARBITRATION

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In the discussion of a vital and important economic problem such as the one now under consideration, in order that the essential matters may be clearly set forth and that the reader may understand exactly what the writer is driving at, it is unfortunately necessary to give careful attention to the meaning of certain terms used. At the outset, consequently, the words "advantages and defects" need consideration. These two familiar terms are capable of rather exact and satisfactory definition when applied to an engineering policy or to a method used by the stock breeder or the market gardener. But when the advantages or defects of a given economic or political policy are considered, new difficulties arise and unusual complications appear. What standard or yardstick can be used for the purpose of measuring advantage or defect? Theoretically, any economic or political program should be deemed advantageous or desirable when it promotes the welfare of society. But the man possessed of a knowledge of practical affairs and of different types and classes of people immediately makes a further and pertinent inquiry. From what angle of vision is the welfare of society to be looked upon? Even the casual observer of industrial and labor problems must admit that what seems advantageous to an employer or a large stockholder in a big corporation often is urged as a defect by the employes of that company; and that which appears desirable to an outsider may be bitterly opposed by those on the inside.

Therefore, in any discussion of the advantages and defects of a policy affecting the relations of labor and capital, it is quite essential that a preliminary statement be offered disclosing the point of view of the writer. In this consideration of arbitration, the following fundamental points are subscribed to: 1. It is desirable that American wage-earners be organized into unions, and that these labor organizations be recognized and bargained with by the employers.

Our government should no longer assume the attitude of indifferent neutrality. The right of wage workers to organize without interference on the part of employers should be given definite legal recognition. 2. A rising standard of living for American workingmen is favored. 3. Peace in industry is held to be highly desirable unless obtained at the expense of the self-respect and the standard of living of the wage-earners. Conclusions in regard to arbitration will doubtless be reached which cannot be acquiesced in by those who do not accept all or any one of these fundamental premises; and the reasoning used will certainly be condemned unless viewed in the light of these basic principles.

Arbitration is an orderly form of procedure for the settlement of industrial disputes as to wages, hours of labor and other working conditions. As a consequence of its use, resort to such weapons as strikes, boycotts, lockouts or blacklists, is obviated. The court or board of arbitration should be composed wholly of persons who do not represent either the employers or the employes; or, if representatives of the two opposing interests are given places on the board, the balance of power must be held by others. In short, the decisions of a board of arbitration are actually made by persons supposed to be neutral in their sympathies and interests. Boards in which the balance of power does not rest with the neutrals or the representatives of the general public should not be designated as boards of arbitration.

In regard to the subject matter considered, arbitration is of two general types: primary and secondary. The second form deals with disputes arising from the interpretation of the terms of a contract already entered into. Primary arbitration, on the other hand, is concerned with the determination of the conditions of employment,—wages, hours of labor, etc. Again, arbitration may be voluntary or compulsory. If voluntary, the two parties agree to accept the findings of the board. If compulsory, the law provides for the reference of industrial disputes to the board, and provides penalties if the findings of the board are disregarded or if a strike or lockout takes place. Arbitration practically implies the recognition of some form of labor organization. This discussion will be limited to a consideration of compulsory primary arbitration.

The advantages of the policy of settling industrial disputes by means of arbitration are easily presented. Arbitration, successfully

employed, means peace in industry instead of war. It prevents strikes, lockouts and boycotts; and business activities may go forward without danger of periodic interruption. The great losses from such interruptions are not incurred; and the friction between employers and employes incident to strikes, boycotts or even the more orderly processes of collective bargaining, is eliminated. A judicial or quasi-judicial determination of controverted points is substituted for the cruder and more direct appeal to the strength of organized labor on the one hand and of organized capital on the other. It may, with a reasonable degree of fitness, be compared with the substitution of court procedure for the feud and the duel.

The defects of the policy of arbitration are more difficult of presentation. More subtle considerations are involved and the clashing of divergent interests and points of view come much more clearly into the foreground.

1. The most serious defect in a system of compulsory arbitration grows out of the absence of any definite and generally accepted standard for the determination of a wage rate. No theory of wages, now formulated, has satisfactorily stood the test of criticism and of practical application in the industrial world; and no board of arbitration has been able to present a scientific standard by means of which disputes as to wage rates may be authoritatively and accurately settled. Consequently, boards of arbitration have as a rule compromised in fixing wage scales. When more than a mere compromise between opposing demands has been attempted, arbitrators have been influenced by a knowledge of what has been paid in the past in the industry under investigation, or what is now being paid in other shops and localities; or they have rested their decision upon the basis of the standard of living by them considered adequate for the wage workers concerned. The first alternative spells fixity, and will be further discussed under the head of the fourth defect.

The second method cannot be considered scientific so long as no definite concept of the standard of living exists. In fixing railway rates the Interstate Commerce Commission has certain fairly definite items as points of departure, such as the actual investment, the depreciation, market rates of interest, the cost of operation. In the determination of a wage award, the standard of living is such an indefinite concept that difficulties arise which prevent any scien-

tific award. Some of the problems are: What is the standard of living? Should it gradually rise as the years go by? Should an allowance be made for the physical deterioration of the worker? Should an allowance be made for insurance against old age, sickness and accident?

A recent dictum of the Ohio Industrial Commission throws an interesting sidelight upon the fundamental problems of a board of arbitration. "Exact industrial justice would not take into consideration the demands of the employes or the proposals of employers, but would be determined after a full investigation and inquiry into the cost of production, cost of maintaining a satisfactory standard of living, distribution of profits, and all other such matters." A brief study of this plan will disclose numerous practical difficulties. What is a "satisfactory standard of living"? To whom is it satisfactory? Does cost of production include a fair profit? And what is a "fair profit"? From whose point of view is it fair? What would be the proper "distribution of profits"? And, what of "all other such matters"? Since almost all industrial disputes directly or indirectly touch the question of wages, obviously, the first and foremost defect of arbitration offers almost unsurmountable obstacles in the present state of the science of economics. It will certainly be difficult to apply the much-discussed "rule of reason."

2. The substitution of arbitration for the strike, boycott or the trade agreement in the settlement of industrial disputes will tend to weaken organized labor or at least greatly to modify the form and programs of such organizations. The reason for this consequence is not difficult of discernment. Labor organizations have been formed to obtain by means of collective bargaining or militant activities, higher wages, a shorter working day or some other improvement in working conditions. Unionists are loyal to the union and cheerfully pay dues only when they believe that the organization is a potent instrumentality to assist them in obtaining their demands. If arbitration becomes the accepted method of determining the wage rate, the necessity for the union becomes less clear to the average unionist. The resort to arbitration will not stimulate self-reliance and self-assertion among the workers. Of course, from certain points of view this seems an advantage rather than a defect. In a personal letter, the editor of a well-known labor journal questions whether arbitration "has been of much practical value in giving

the workers those opportunities for self-assertion" which are "necessary for their welfare if they are to take an active part in the determination of what their terms of employment and conditions of labor will be."

3. Arbitration involves the intervention of a third party. The members of a board of arbitration who are supposed to be neutral and to represent the public, as a rule, are not familiar with the conditions in the industry. This fact adds to the difficulties in formulating a scientific judgment which will stand the test of rigorous criticism; and it does not inspire either side with confidence in boards of arbitration. Wage workers naturally hesitate to place the determination of matters which vitally touch their chief business in life in the hands of outsiders more or less ignorant of conditions in the industry and also of their point of view.

4. The procedure of a board of arbitration resembles that of a court; it is judicial in its methods. Therefore, precedent plays a large part in the deliberation of a board of arbitration. Since labor is struggling upward toward a higher standard of living and toward higher social standards, labor organizations look with suspicion upon any institution or method of procedure in which precedent plays a considerable rôle. Precedent for wage workers spells slavery, serfdom or low standards of living and social inferiority. Laboring men and women are struggling to get out of the "servant" class. They want to be recognized as "equals" of their employers and the managers of the business in which they are earning a living. Wage workers are eagerly looking forward to the day when labor as well as capital shall have a voice in determining the conditions in industry, to the time when the representatives of the employes shall be admitted to the meetings of the boards of directors. Compulsory arbitration would seem to offer little opportunity to press forward along this line.

Again, in case no definite legal principles can be invoked, the decisions of the board depend in no small measure upon the training, interests and idiosyncracies of the judge or umpire. It has been noted that no fundamental principles which are of general acceptance can be laid down for the guidance of boards of arbitration. Consequently, there is reason for the assertion made by labor leaders that the decisions of boards of arbitration depend upon the personal bias and the preconceived notions of the arbitrators. In the event of the

adoption of compulsory arbitration in this country, the choice of arbitrators or of those officials whose duty it would be to make such selection, would inevitably become a political issue. And, further, political considerations would become determining factors in the rigid or the flabby enforcement of the law.

5. The decisions of a board of arbitration, particularly when adverse to the workers, are difficult of enforcement. It might involve the necessity of penalizing large numbers of citizens.

6. Except in a few basic or quasi-public industries, a law providing for compulsory arbitration would probably be held unconstitutional.

An incidental weakness or defect of arbitration is due to the lack of a consistent policy for or against it on the part of both employers and wage workers. Neither employers nor employes at all times and under all circumstances take the same attitude toward arbitration. In some cases, unionists demand arbitration; again, they reject such proposals. Likewise, employers sometimes favor arbitration; and, again, they contemptuously reject it. Employers usually stand for arbitration in industries when the unions are strong as in the railway industry. But in other industries where organized labor is weak or has been eliminated, the employers insist upon their right to run their business without interference.

The United States Steel Corporation has not attracted much attention as an advocate of voluntary or compulsory arbitration in its own plants; and the copper companies of northern Michigan are not well-known friends of these measures. Less than half a decade ago, the president of a New York City street railway company sternly informed the employes of the company that they were his servants and that he expected them to do his bidding. "Arbitration between my servants and me is impossible." How different was the attitude of the steam railway presidents in 1916! On the other hand, the anthracite coal miners in 1902 were quite willing to arbitrate their differences with the operators; but, in 1916, the railway brotherhoods rejected arbitration. The progress of compulsory arbitration in Australasia in recent years is partially due to "the demand of employers for protection against more powerful unions."[1] But the first law passed in New Zealand in 1894, was favored by the union men of the island and opposed by the employers.

[1]Commons and Andrews, *Principles of Labor Legislation*, p. 143.

No scheme for the adjustment of industrial disputes is without defects; but, in the opinion of the writer, the defects of compulsory arbitration outweigh its advantages. Nevertheless, in view of the rapid growth in numbers and importance of industries affected with unmistakable public interest, it seems quite probable that unless employers and organized labor can settle their differences by collective bargaining and trade agreements or in some other manner not requiring resort to industrial warfare and chaos, compulsory arbitration with its defects and its advantages or a system similar to that being tried in Canada, will be adopted as the legal remedy. In case of a great strike tying up, for example, a large railway system or the coal industry the demand for industrial peace will become so insistent that some legislative remedy or palliative will be enacted.

If this diagnosis of the situation be fairly accurate, the following conclusions may be offered. Associations of employers and unions of wage workers must face the welcome or unwelcome indications that if they cannot compromise their differences by collective bargaining and thus avoid industrial warfare, legal coercion will be used to adjust the matter according to the findings of boards in which the balance of power is held by men from the outside appointed by public officials. The law court system of adjusting personal and group disputes and quarrels is by no means perfect; but very few individuals favor a return to the medieval system of settlement by personal combat and feudal warfare. If organizations of wage workers and of employers cannot bring about industrial peace, they must suffer the consequences whatever such consequences may be. It is, however, by no means certain that compulsory arbitration will achieve industrial peace. It has not in New Zealand or in New South Wales. Because of the political weakness of organized labor in the United States, the drafting and the enforcement of compulsory arbitration laws will doubtless, as a rule, be under the control of persons not recognized as friends of organized labor. Under such circumstances it may not be anticipated that this legislation will be very distasteful to the business interests of the nation.

CANADIAN LEGISLATION CONCERNING INDUSTRIAL DISPUTES

With Special Reference to the Disputes Investigation Act

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Two statutes present themselves for consideration: (1) the *Conciliation and Labour Act;* and (2) the *Industrial Disputes Investigation Act, 1907.* The *Conciliation and Labour Act* contains the earliest Dominion legislation concerning industrial disputes. This statute, in its present form, is a consolidation dating from 1906 of two earlier laws, the *Conciliation Act* and the *Railway Disputes Act.*

The *Conciliation Act* was passed in 1900. It provided for the appointment of a Minister and Department of Labour with certain prescribed functions, and for the institution under the supervision of the minister of a system of conciliation boards for the adjustment of industrial disputes. The statute, in so far as it related to conciliation boards and industrial disputes, proceeded generally on the lines of an English act. It will be interesting to glance at the conditions in Great Britain producing the law which the Canadian act follows.

Conciliation committees or boards have, for more than half a century, existed in mining and manufacturing districts of Great Britain, springing up quite naturally and unofficially for the adjustment of the disputes necessarily growing out of an intense industrialism. Selected persons represented the varied interests of a particular industry in a given district,—of textile working or coal mining, for instance, in Lancashire or Yorkshire. The boards assumed in time and in some cases a certain permanence of character, while the chairmanship acquired almost a semi-judicial aspect. When difficulty occurred in filling a chairmanship by agreement the disputing parties fell into the habit of requesting an appointment by the government. The duty of making such appointments was vested in the Board of Trade, and gradually there was created a situation whereby the Board of Trade found itself in touch with

a group of expert adjusters whose success in the work entrusted to them depended on their skill, tact and known integrity rather than on any legal or formal authority. The element of legal compulsion was not a factor in the settlement of industrial disputes which came before these conciliation boards.

The machinery of the boards was developed and improved as the years passed. The English Conciliation Act of 1896 confirmed and encouraged the system which had grown up. The work of the conciliation boards aided in the settlement of many trade disputes, and strikes or lockouts were prevented in these cases, but industrial unrest kept pace, perhaps more than kept pace, with industrial development. Some trades did not avail themselves of the methods of conciliation boards and there was in such cases little to hinder the rapid aggravation of small disputes into strikes or lockouts. In some cases also where the boards existed their best efforts were futile and the disputants resorted to the methods of the industrial battlefield. Disastrous and even terrible industrial conflicts recurred from time to time. The necessity of conciliation machinery increased as the question of industrial relations pressed more and more to the front.

Calls on the British Board of Trade for expert adjusters, assessors, etc., in industrial disputes which the disputants could not settle directly, became more frequent, and in 1908 the machinery relating to conciliation boards was further developed for the constitution of a Court of Arbitration. For the purpose of this Court three panels were formed: a chairman's panel, an employers' panel, and a labour panel. By virtue of this new agency, on the application of the parties to an industrial dispute, a Court of Arbitration consisting of three or five members is nominated by the Board of Trade from these panels, the powers of the Court corresponding generally with those which a Conciliation Board had possessed.

Yet a further expansion in Great Britain of the conciliation system was the establishment in 1911 of what was termed an Industrial Council, composed of representatives of employers and employes, with a Chief Industrial Commissioner; the Industrial Council was established "for the purpose of considering and of enquiring into matters referred to them affecting trade disputes," etc. Sir George Askwith, K.C., who became chairman of the council, had been long a leading figure in the group of expert adjusters from

which the Board of Trade had been, on the request of the disputing parties, selecting chairmen of conciliation boards.

It is of interest to note in passing that Sir George Askwith visited Canada in 1912 for the purpose of investigating the nature and operations of the *Industrial Disputes Investigation Act, 1907*, the Dominion statute which was now effective in these matters and the enactment of which by Great Britain was being urged in some quarters as a possible remedy for the disastrous industrial conflicts which then were distracting that country. Apart, however, from certain special legislation limited to the coal mining industry, and consequent on the national coal mining strike of 1912, no further legislation as to industrial disputes was enacted in Great Britain until the outbreak of the war, when a measure was passed not far removed in its general intent from that of the Dominion statute on which Sir George Askwith reported.

Before leaving this aspect of the subject, it may be added that at the close of 1914, 300 conciliation boards or courts were in existence in Great Britain; the same figure had obtained at the end of 1913. British official reports show that, despite the efforts and influence of these numerous conciliation agencies, there were 1,497 strikes or lockouts in Great Britain during 1913, with time losses of nearly twelve million working days; for the corresponding year in Canada the number of strikes was 113, with time losses of 1,287,-678 days.

Let us return now to the Conciliation Act enacted by Canada in 1900. The statute was obviously designed to promote in Canada the establishment of conciliation boards on the lines of those found in Great Britain. The measure was destined to remain inoperative in so far as it concerned conciliation boards; no tribunals of this nature were established under its provisions. The act was not, however, fruitless in its bearing on industrial disputes. Officials of the newly established Department of Labour were required to follow closely the course of industrial disputes, not only for statistical purposes, but from the point of view of public welfare. Offers of mediation were made in serious disputes. The offers were frequently declined and intervention was possible only by consent of both disputants. Where mediation was accepted the department seems to have acquitted itself creditably and the Deputy Minister of Labour of that time (Mr. W. L. Mackenzie King) established some

reputation in the adjustment of industrial disputes. Dominion officials had not previously made efforts in this direction. The work thus accomplished was of some value, but the facilities of the department were not large and no headway was, as we have seen, made in the development of the conciliation board system whereby local effort and influence might be sometimes effectively utilized for the solution of a particular difficulty.

In 1903 was enacted the *Railway Disputes Act*, a measure applying, as its name suggests, to disputes in industries affecting the railway service. The new statute invested the Minister with a limited power of compulsion with respect to the establishment of conciliation boards. Where a dispute existed between a railway company and its employes, and either party to the dispute (or a municipality concerned therein) asked that the dispute might be referred to a board for adjustment, the act permitted the establishment of a board without requiring the consent of the other disputant. If, however, the establishment of a board was not requested, no board could be established, and in any event the statute placed no restraint on the right to strike or lockout. This measure remained, on the whole, inactive, only one dispute being referred for adjustment under its provisions down to 1907, when it was practically displaced by new legislation. It is not impossible that the existence of the statute may have exerted sometimes on the parties to a dispute a silent pressure towards an amicable arrangement by direct negotiation, but on this point there is no record.

In 1906 the two measures mentioned were consolidated for the revised statutes of Canada and became known as the *Conciliation and Labour Act.*

The year 1907 saw the enactment of the *Industrial Disputes Investigation Act*, the scope of which is aptly indicated by its complete title, "An Act to aid in the prevention and settlement of strikes and lockouts in mines and industries connected with public utilities." The new statute contains the first limitation placed by the Dominion Parliament on the right to engage in strikes or lockouts, the limitation being confined to stated classes of labour. The process of dealing with a dispute entails its reference for attempted adjustment to a Board of Conciliation and Investigation formed on the lines of the ordinary board of arbitration, with a nominee from each of the disputants and a third member, the chairman, selected

if possible by joint agreement; failing a joint agreement as to the chairmanship, the chairman is named by the Minister of Labour. A strike or lockout in the industries indicated is unlawful, under penalty, until the dispute in question has gone before the board. The provisions of the Act have been recently extended to what may be broadly designated as war industries in all their branches, so that a lockout or strike in such industries prior to procedure under the statute becomes unlawful.

It will be useful, before discussing the Dominion Act further, to look broadly at the conditions elsewhere as to legislation on this subject. The situation in the United Kingdom has been already outlined. In the United States, as in the case of Great Britain, the new Canadian law was made the subject of official inquiry. Dr. V. S. Clark, a skilled investigator, visited Canada in 1908 and again in 1909, with a view to ascertaining the adaptability of the statute to the requirements and conditions of the United States. Dr. Clark's reports are valuable treatises on the statute and its aims and achievements, as at the time of enquiry. Similar enquiries into the Canadian Act have been made by various states of the union. The United States proceeded, however, on other lines, its efforts culminating in what is known as the *Newlands Act* of 1914, which created a Board of Mediation and Conciliation, designed, like the British Industrial Council, for the purpose of promoting industrial peace and not unlike the British Industrial Council in its general method of operation; the jurisdiction of the United States Board of Mediation is, however, severely limited, extending only to disputes involving employes of interstate railways. Like the British statute, the measure is permissive, not compulsory. The legislation of the states of the union, when it touches the subject of industrial disputes, has not gone beyond efforts at conciliation and the provision in some cases of carefully devised machinery for that purpose.

A concise statement as to the situation in continental Europe in these matters appears in a special report on legislation respecting industrial disputes issued a year or two ago by the Labour Department of the British Board of Trade:

> Amongst the foreign countries covered by this return, says the report, it will be observed that in Europe there are nine, the statute books of which comprise legislation specially designed to avert strikes on the part of those employed in public utility services. While varying widely in range and stringency, these laws possess one characteristic in common: the workpeople to whom they relate are in

every case placed on a footing different from that of the general body of industrial workers in respect to the right to engage in strikes, this right being either explicitly withheld or else subjected to specific limitations in its exercise.

Of the nine countries referred to, five have enacted laws absolutely prohibiting workpeople employed in certain public utility services from engaging in strikes. These countries are Russia, Roumania, Holland, Belgium and Italy. In Russia and Roumania, the law covers the whole field of what may be termed public utility services, whether governmental or local. In Belgium, it applies to all persons in the service of the state, including the railways, post office, telegraphs and telephones; in Italy, it applies to all persons in the service either of the state or of a railway company, while in Holland, only those employed on main lines of the railway service are included. Three countries, viz., Spain, Portugal and the Ottoman Empire, have enacted laws applicable to all public utility services, and declaring concerted stoppages of work illegal, unless certain conditions have previously been fulfilled. In Spain, the conditions are that notice of the strike or lockout shall have been given to the authorities, either eight days or five days beforehand, according to the nature of the undertaking, and that such notice be accompanied by a statement of the cause of the strike or lockout. The Portuguese law insists on twelve or eight days' notice being given of the strike or lockout, according to the nature of the undertaking, and requires that such notice be accompanied by a statement of the causes or objects of the strike or lockout. Under the same law, all "officials, public servants, or those receiving salaries from the state" incur the penalty of dismissal, if they combine to suspend work.

The last of the nine European countries that call for mention in this connection is France, where the only persons employed in public services who incur legal penalties for participating in strikes are the engine-drivers, guards and brakesmen actually in charge of trains, and the outdoor staff of the postal service.

While attempt to avert strikes and lockouts in public utility services by means of special laws withholding or limiting the exercise of the right to strike are confined to the nine countries just enumerated, there are two countries—Germany and Austria—where, so far as the railway, postal and allied services are concerned, the exercise of such a right on the part of the staff is rendered impossible in practice by the policy pursued by the authorities towards any manifestations of trade union activity among members of these services—a policy based on the assumption that membership of a militant trade union is incompatible with loyalty to the department and with the safety of the state.

The British report contains a further paragraph showing that permanent courts of arbitration "equally representative of the interests of employers and of workpeople," especially for the promotion of industrial peace, exist in Denmark and in the Swiss Canton of Geneva.

There remain the British Dominions. Apart from the Dominion laws now under consideration there is little to be said of Canada. In Ontario and Quebec there are laws providing machinery for conciliation purposes: the machinery is but little used.

A more interesting statute is that of Nova Scotia, dating from 1890 (amended 1900), which, applying to the coal mining industry only, forbids a strike or lockout where one of the disputants calls for a reference of the dispute to arbitration in the manner provided; where there is no request for arbitration there is no restraint on strike or lockout.

South Africa needs but a word. In 1909 the Transvaal enacted a law adapted from the Canadian statute of 1907, and this measure is understood to have remained effective under the South African Union.

In Australia and New Zealand the situation is more intricate. For twenty years the various Australasian States have shown extraordinary activity in legislation concerning industrial disputes. The writer of an Australian letter contributed so long ago as April 14, 1909, to the *Otago Witness*, one of the leading journals of New Zealand, remarks: "The Commonwealth and States will in a few years be overlain with a web of industrial legislation and judicial decisions which will tax the brain of the future European should he endeavour to unravel it." The period subsequent to the date of this comment has not been less fruitful than earlier years in industrial legislation in Australia, and with this warning before us it will be perhaps wise to abstain from too close an inquiry into the subject. The independent and original character of much of this legislation is perhaps reflected in the view which finds expression in a report issued in July last by the Government of Victoria on "Anti-Strike Legislation":

> The laws in parts of the world outside Australia, excepting perhaps Canada and South Africa, are of little use as a guide, from the fact that conditions from military and other points of view are so different. It is interesting to note that no two laws in Australia, nor, indeed (so far as I can find), in the world, have quite the same provisions against strikes and lockouts. This may be accounted for in part by the different conditions, but it also suggests that anti-strike law has not yet evolved; that it is in its elementary stage; and that each country, as it set about choosing its method, turned down every system already in existence and proceeded to set up a new one of its own.

At another point in his report the writer credits the Canadian Act of 1907 with having inspired not only the Transvaal Act of 1909, as mentioned above, but also the Queensland Act of 1912 and the New Zealand Act of 1913, which, in what are perhaps their chief features, approximate to the Dominion measure.

Of the abundant industrial legislation of Australasia it may be said generally that while numerous statutes were enacted having as their chief aim the elimination of strikes and lockouts, and in many cases (as in New South Wales) expressly prohibiting them, under severe penalties, the strike has by no means disappeared. The Statistician of the Commonwealth of Australia places the number of strikes and lockouts for Australia for 1914 at 334, involving time losses of 942,000 working days, as against 44 disputes only, in the same year, for Canada, with its much larger population, the Canadian disputes entailing time losses of 430,000 days. The comparison is yet more favourable to Canada if it is confined to the State of New South Wales, where alone, in 1914, the strikes numbered 235, with time losses of 727,726 days.

Just why the dominions and states of the South Seas should have shown so much greater activity in this field of legislation than has been manifested by the Dominion and provinces of Canada must remain a matter of interesting conjecture, but if the number of strikes and lockouts is a criterion of industrial unrest, then the figures quoted do not suggest that the comparative inactivity of Canada has brought a severe penalty.

The Canadian statute of 1907 is then in agreement with the laws of several countries in two important respects: (1) in being applicable to industries connected with public utilities; (2) in declaring that strikes and lockouts may not occur legally in these industries until after efforts at adjustment through official machinery have been made. In some countries, however, the prohibition goes beyond that of the Dominion law and is unconditional. The Dominion statute is exceptional in being applicable to the mining industry.

It was in 1906 that a prolonged strike in the Galt coal mines of Lethbridge, Alberta, brought about a severe shortage of fuel in southern Alberta and southern Saskatchewan. The Prime Minister of Saskatchewan, the province in which perhaps the difficulties were most acute, asked the aid of the Dominion government and the then Deputy Minister of Labour, Mr. W. L. Mackenzie King, was despatched to the scene of the dispute, this action being taken under the authority of the *Conciliation and Labour Act.* The efforts of the Deputy Minister and the increasing evidence of the hardships threatening the public combined to bring about a

settlement and the threatened fuel famine was prevented. Official reports of the period show that the incident caused special consideration to be given to the subject of industrial disputes legislation with a view particularly to the prevention of strikes or lockouts of such a nature as to jeopardize the public safety. The classes of industry known generally as "public utilities" are, clearly, those with which the public interests are most intimately identified. The term "public utilities" is somewhat loose and its interpretation varies in different countries. In New Zealand, for instance, bakers and slaughtermen (butchers) fall within the category, and from the point of view of the prairie provinces in 1907 there was much to be said for regarding the coal mining industry as a public utility. The interpretation clause of the Canadian act is of some assistance. The clause declares that "employer" means "any person, company or corporation employing ten or more persons and owning or operating any mining property, agency of transportation or communication, or public service utility, including, except as hereinafter provided, railways, whether operated by steam, electricity or other motive power, steamships, telegraph and telephone lines, gas, electric light, water and power works." It was of course inevitable that coal mines also were brought in. The statute prohibits under penalty a strike or lockout in any of the industries indicated until after the dispute which is in question shall have been before the Board of Conciliation and Investigation, and it provides for the establishment of a Board of Conciliation and Investigation on the application of either party to a dispute. The composition of a board was explained above.

The act gives the board the requisite powers for taking evidence, etc. Proceedings are public or private as may seem expedient to the board. The department pays fees and traveling expenses of board members, witnesses, etc., and for necessary clerical work. If the board by conciliatory effort brings the disputants together and a working agreement results, the dispute manifestly is ended. If this is impossible the board is required to make findings and recommendations showing how in its view a settlement should be made. Provision is made for a minority report. All reports are made public. The theory of the act is that the board's findings, being based on what is presumed to have been a fair and impartial investigation, will bring an informed public opinion to bear on the

matters which have been in dispute, and that either of the disputants who is unreasonable in his attitude will thus be induced to yield a point and accept the recommendations of the board rather than fly in the face of a public opinion which might be expected to sustain the view of the board; acceptance of the findings, however, no matter how urgent the apparent advantage or necessity, is not legally compulsory. Once the board's findings are made public the disputants, unless of course they have voluntarily bound themselves before the board by agreement, are freed from the restraining effect of the statute and the threatened strike or lockout may proceed. Penalties are named for those taking part in strikes or lockouts contrary to the terms of the act, also for persons who incite, encourage or aid those taking part in such strikes or lockouts. Clause 57 of the act aims also at preventing changes in conditions with respect to wages or hours save by mutual consent or until the proposed changes have been before a board. Procedure under the statute is on simple lines, and in practice the effort has been to free the tribunal so far as possible from the formalism of courts of law. Section 4 provides for a Registrar, and on the passage of the act the Deputy Minister of Labour became by Order-in-Council Registrar of Boards of Conciliation and Investigation. On the constitution of a board the Registrar forwards to the chairman the necessary documents and instructions. Certain provisions of the statute are intended to guard against the establishment of boards for trivial matters, and the practice and experience of the department are naturally of assistance to this end.

The statute became law on March 22, 1907. It has been once amended (1909), but the amendments have affected only some details of procedure. Statements of proceedings under the act show that down to the end of the fiscal year 1914–15 there had been 177 disputes in which applications for boards of conciliation had been received. Boards were established in 158 cases. In the remaining 19 cases adjustments of the disputes were effected, usually through the agency of the department, without the aid of a board, though in some cases not until after the procedure for a board was under way. The total number of employes affected by the 177 disputes is placed at 231,426. The railroading and coal mining industries have figured most largely before boards of conciliation; street railway employes and longshoremen have also called for many enquiries.

In a great majority of the cases thus dealt with the strike or lockout which threatened was averted, either by positive settlement or by expressed or tacit understanding. During the eight years ended March 31, 1915, there were 19 disputes, in which the threatened strike was not averted. In other words, in about 11 per cent of 177 disputes brought under the statute no sort of understanding could be arranged between the disputants, who proceeded accordingly, to the last resort of all disputants, a trial of strength, which, the requirements of the law having been met, was no longer illegal. There are few lockouts in Canadian industrial life, and in the 19 disputes which could not be adjusted the trial of strength involved in each case a strike. Enquiry into the outcome of the 19 strikes in question shows that in the majority of cases settlement was ultimately effected closely, if not wholly, on the lines recommended by the board.

The annual appropriation for the purposes of the statute is about $25,000, and the amount has generally proved sufficient to meet the expenditures.

A phase of the subject which should not be overlooked is that the machinery of the *Industrial Disputes Investigation Act* is set in motion by one or both of the disputants, or it remains still. A board cannot be established until an application is received from one of the disputing parties, but the non-establishment of a board does not lessen the restraint as to strikes and lockouts.

Reference has been made to the strikes occurring in disputes which had been before boards and had not been adjusted. There has been also, in industries coming under the act, a considerable number of strikes in disputes which have not gone before a board for investigation. Work ceased in these cases without regard to the act. Many of the serious coal mining strikes in Western Canada during recent years have occurred in this way.

What, it may be asked, becomes of the penalties prescribed for these apparent infringements of the statute? The reply must be that such cases have seldom gone to the courts. It has not been the policy of the successive Ministers under whose authority the statute has been administered to undertake the enforcement of these provisions. The parties concerned, or the local authorities, have laid information occasionally, and there have been in all eight or ten judicial decisions. The mining industry has been the chief delin-

quent in the matter of infringements, and there have been occasional derelictions on the part of the lower grades of transport or shipping labour; in the higher grades of railway labour the act has been well observed.

The usefulness of the act is perhaps better determined, in any event, less by the negative results in situations where the parties have, regardless of consequences, stayed deliberately aloof from its influences and operation than by the positive results obtained in situations where the parties concerned have, whether cordially or reluctantly, brought their differences within the scope of the act. The figures printed above show the very large proportion, 89 per cent, of cases where, in disputes thus dealt with, the threatened strike has given way to a peaceable arrangement.

A further point to be noted is that, apart from the direct bearing of the act on disputes in industries connected with mines and public utilities, its machinery is, by sec. 63, made available for industrial disputes of any kind, the consent of each disputant being, however, necessary where the dispute lies outside the stated industries; in such cases the statute becomes purely a measure of conciliation, as was the original Dominion statute of 1900. This feature of the *Industrial Disputes Act* has so far been less active than had been perhaps hoped. Of the 177 disputes brought within the influence of the act during the eight years ended March 31, 1915, ten were of what may be termed the "outside" classes, and in each case an amicable settlement was effected.

It will be manifest to those who examine the record of the act that much responsibility falls on the chairman of Boards of Conciliation and Investigation, who must of necessity be frequently the decisive factor in the efforts made at adjustment. In approximately one-half the total number (158) of boards which have been established the chairman has been appointed by joint agreement; in the remaining cases the appointment of the chairman has been made by the Minister. The small proportion of disputes going to boards in which the threatened strike was not averted (19 out of 158) would suggest that the chairmen, whether appointed by joint agreement or otherwise, have as a rule possessed the tact, skill and breadth of mind necessary for the difficult work of adjusting an industrial dispute.

There are three respects in which it is possible to look forward

to a widening sphere of usefulness for the act, as the sound reason of the principles on which it is based and the simplicity of procedure associated with it come to be more completely recognized by those affected and by the public at large, viz.: (1) the disappearance of unlawful strikes and lockouts; (2) an increasing disposition on the part of those concerned in disputes brought before a board to accept the findings of the board; (3) more frequent application of the machinery of the act to the settlement of disputes in "outside" industries. If the effectiveness of the two statutes under consideration can, in these important respects, be increased, Canada would seem to have come nearest among the nations to the discovery of that legislative alchemy which the industrial world has so long sought, and the reign of industrial peace would be at hand. But it is well that any prediction should be guarded. The factors that make for and against industrial peace, as with peace in the larger world of nations, are many and varied. Human motive is seldom based on reason alone. There are those who will not be content with what an Ontario politician once described as "cold justice," not at least while there appears a chance of "better terms," whether by an adroit manoeuvre or, sometimes, by rougher methods. Moreover the ancient problems, "What is justice?" "What is truth?" remain substantially unsolved and attempts at solution bring their clashes.

THE ATTITUDE OF ORGANIZED LABOR TOWARD THE CANADIAN INDUSTRIAL DISPUTES INVESTIGATION ACT

By A. B. Garretson,

President, Order of Railway Conductors of America.

To intelligently consider whether or not the Canadian Industrial Disputes Investigation Act can be successfully transplanted into the American labor field it is necessary to take into consideration its origin, the road which it has traveled and the result where used.

The act had its origin in the Australasian region, where every influence that entered into its acceptance and application was strongly pro labor, where labor government controlled, where the courts were strongly sympathetic, and where every agency entering into its exercise operated to bring out the equities of the act. Transplanted into a somewhat different form of governmental machinery, it did not develop the elements of value which characterized its uses in the region where it had its birth, and instead of mitigating the evils which it was designed to remedy, it only succeeded in breeding an almost universal distrust of, and contempt for, legal machinery designed to settle troubles that should be settled between the parties thereto.

Any condition which breeds in the minds of large bodies of men contempt for law is, in itself, the very essence of all that is pernicious and no one thing is more subversive of good government than the enactment of laws which produce this result. Since the enactment of this law in Canada, had legal action been taken against every violator of its provisions, it would be shown that it has been an active element in creating an army of law-breakers, and when men violate a law with knowledge and impunity, that of itself begets a condition which operates strongly against respect for law.

It has been demonstrated time and again (and out of this demonstration grows the attitude of the laborers toward the act) that the compulsory period provided for investigation, during which men must remain at work, is almost invariably utilized by the em-

ployer, regardless of the spirit or letter of the act, to reinforce himself against the efforts of his men to better their condition and, at the end of the period, he coolly repudiates the finding of the commission, whatever it may be, and proceeds to operate his plant, regardless of the cessation of labor on the part of his men, whom he has used the time to replace, thereby demonstrating to men in general that the machinery of the law is to be utilized as a weapon to defeat the contentions of the men who labor, regardless of how just may be the claim which they put forward on their own behalf.

Industrial unrest, in all its phases, is augmented and added to every time that a man who in any degree possesses it has his beliefs strengthened that governmental agencies are not only created but administered as an aid to the man who employs him; that laws first are enacted for the benefit of the employer, and second, that they are administered by courts and tribunals, supported by, and prejudiced in favor of, the employing class; third, that governmental and municipal forces, city, county and state, also spring from, are affiliated with, supported and influenced by, that same class, and that every form of military agency, from city police and township constable to state militia and regular soldiers, is utilized, not as an impartial or neutral agency to maintain peace but as an economic weapon to be availed of solely by one interest and at the expense of the other.

Therefore, in the minds of the Canadian laboring men, the Industrial Disputes Act has been classed, from their experience therewith, among these agencies and the temper of Canadian laboring men thereto is shown by the fact that the Dominion Trade and Labor Congress, assembled last month, almost unanimously denounced the act as absolutely undesirable and demanded its repeal.

The railway brotherhoods are almost the only large class of employes who, in the Dominion, have scrupulously conformed to the provisions of this act and they have done this at an immense disadvantage to themselves.

To illustrate what the working of this act would have been had it been effective on this side of the line in the late controversy between the railways and their employes over the eight-hour question: In 1910 the Order of Railway Conductors and the Brotherhood of Railroad Trainmen had under way a wage movement covering what is known as Eastern Association Territory, this com-

prising all the railways of the continent east of Chicago, Duluth and the Mississippi River and north of the Ohio, a total of some eighty railroads, three of which are Canadian. The railways refused to deal collectively for the territory and negotiations opened on the Baltimore and Ohio Railway about January 10. Two days after that time negotiations opened on the three Canadian railways involved, two Canadian vice-presidents of the organizations being in charge of those negotiations. The last settlement of the seventy odd railways on the American side of the line was concluded on July 19, the settlement being agreed upon on that date. At six P. M. that same date the men on one of the Canadian lines went on strike on account of the delays interposed by the managements and made possible under the Industrial Disputes Act in effect on that side. If the seventy odd roads in American territory had been subject to the provisions of a like act it would have called for the creation of over seventy investigating boards and unfinished business on the Judgment Day would have been the natural result. In the late movement for the eight-hour day this would have been multiplied by the additional number of roads involved and ten years would not have been sufficient to have disposed of the hundred odd railways involved in the eight-hour movement.

The writer is not dealing with this question from hearsay but from actual experience therewith and as an outgrowth of that experience is strongly of the belief that no weapon as potent as this Industrial Disputes Act has been devised for defeating the legitimate effort of laboring men to better their condition. It is significant that in its place of origin, New Zealand, it has recently been repudiated by large bodies of working men, who proceeded to take action regardless of the provisions thereof because it has been demonstrated to them that it contains elements greatly to their detriment.

The real difficulty in the solution of these questions lies in the fact that nearly every remedy that is offered deals only with the effect of conditions. In the treatment of industrial strife it would be well to follow the general trend of medical schools for the past century. Formerly the mission of the doctor was only to cure. In later years greater effort is given to the prevention of ills, and until this course is pursued and the cause of industrial unrest is removed it will be found that the effort to abolish the disease is without result.

THE TREND OF VOLUNTARY CONCILIATION AND ARBITRATION IN LABOR DISPUTES

By George M. Janes, Ph.D.,
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It is a popular fallacy that trade unions foment strikes and that striking is their reason for being. To this the trade unionist says: "Young and weak unions have many strikes; old and strong ones have few. If unions were mere striking machines, the opposite would be true." The importance of moderation is insisted upon by most labor leaders. Collective bargaining is the ultimate goal of nearly all trade unions, and to reach it not only organization but discipline is needed. Strikes are dangerous to the organization and costly. Hard experience has taught trade union officials that something more than enthusiasm is necessary to win a strike; and, while it may be true occasionally that a union thrives on opposition, a strike is not to be considered an end in itself. If the strike is lost, the better wages and conditions obtained by previous effort may be lost also. Experienced union officials, therefore, count the cost before entering on a struggle with the employer. The "get-rich-quick strike method," as it is called, is termed a failure. Paradoxical as it may seem, young and inexperienced unions often disintegrate after a strike is won, because it is easier to rely on promises than to continue the union and pay dues. But the retention of higher wages and better working conditions is usually contingent on the continuance of the union. The trade-union leader must not merely estimate the chances of success, but must also consider whether the ground won can be held. The law of the survival of the fittest has, therefore, brought about a more or less complete national control as opposed to local control of strikes in many unions, while in all there is unanimity of opinion concerning the value and need of organization and discipline. The domination of the national union over the local union usually means a conservative policy in the matter of strikes, as is brought out more fully by the writer elsewhere.[1]

[1] Janes, George M., *The Control of Strikes in American Trade Unions*, Johns Hopkins University Studies, Series 34, No. 3.

Trade unions, however, vary in their composition and, like all other human institutions, have emotional and reasonable, radical and conservative men in their membership. Although it is true in the long run that age and closer organization bring about a conservative policy in the matter of strikes, the fact remains that trade unions vary from one another to a greater or less extent in point of view and policies pursued. The Industrial Workers of the World and the Western Federation of Miners, for instance, repudiate any form of arbitration or trade agreement with the employer and rely on direct action to attain their ends. The fruits of this policy are that the former organization is distinguished more for noise than for the real advancement of its few members, while the Western Federation of Miners is now on the rocks of disintegration. The Bridge and Structural Iron Workers, likewise, have relied on violence and the result is that many of their prominent members and former officials are now serving prison sentences. Another type exists, which has been termed the predatory one, whose officials use their position for extorting money for their own pockets from the employers—especially contractors—by threatening strikes or for terminating strikes. But the difference between trade unions is in reality no more than that which exists in the business world with the reliable merchant at one end and the "fence" receiving stolen goods at the other. The great mass of trade union members, like the great mass of business men, are trying to better their own conditions and have the same average ideas of ethics and justice as their neighbors. If this were not true, the use of conciliation and arbitration in labor disputes would be a vain dream.

Quite early in the development of American trade unionism it was realized by bitter experience that numerous strikes were disastrous and so rules were gradually adopted aiming at restriction of strikes to those disputes in which efforts at conciliation or offers of arbitration had failed to bring about an adjustment. This development is especially marked in those unions where the national union is dominant. The usual order of procedure in such unions in bringing about a strike is as follows: (1) the local union must exhaust all means of bringing about an adjustment of the difficulty; (2) the local union may then pass a strike vote which to be binding must be by secret ballot by a two-thirds or three-fourths vote of all members present, who have a standing of two or theee months or

more; (3) the local union after this has been done must secure the approval of the national union, which generally means the national executive board, for the action taken; and (4) finally, only after exhaustive efforts on the part of the national officers or their deputies to bring about a settlement, can a strike be declared. A general vote of the entire membership, or that of the district affected, is taken before acting in a number of unions, especially the railroad brotherhoods. Even those unions in which local autonomy is the rule provide in some instances for arbitration by a provision in their constitutions that efforts for arbitration of disputes should be made before striking. The point of the procedure thus worked out is that time is allowed for a reasoned consideration of the dispute and for conciliation or arbitration with the employer instead of hasty, emotional, and ill-considered action at once. The trend in this direction seems to be quite general.

The sending of a national official to the scene of any trouble, or the "deputy system" as it is called, is a marked development of the principle of voluntary conciliation and arbitration. The function of the deputy is to go to the locality, investigate "the alleged matter of complaint," make an effort to adjust the matter, if possible, and report to the president and the executive board of the national union his conclusions and recommendations as to what course should be pursued. The agent or deputy is a representative of the national union, and his duties can be laid down only in a general way. As one trade union official has said:

> The man on the ground representing the international union should use his best judgment; it does not matter whether he agrees with the local committee or not. If capable and experienced he is supposed to lead and not to follow. It is his duty to stand by the international union regardless of consequences, to protect the funds against waste and extravagance, and to maintain its reputation for a "square deal" with union manufacturers.

The deputy must be received by the local union, for if he is not permitted to perform his duties, strike benefits may be withheld by the national union and no further assistance granted. A strike entered into by a local union after refusing the offices of a national deputy would be illegal and would subject the local union to discipline such as a fine or loss of charter and strike benefits.

In all the unions that have adopted the "deputy system" it is regarded as important that the deputy should be on the ground

before a strike is begun. It is required, therefore, that the members involved continue at work pending investigation and until a final decision has been reached. The rule has worked well; for any dispute can be more easily adjusted before an actual breach has occurred. President Martin Fox of the Iron Molders has observed that this rule "has strengthened the position of the union and proven beneficial in all cases." President Menger of the Operative Potters in an interview with the writer said:

> If an international officer can get on the ground before a grievance has assumed large proportions and before either side has committed itself, a settlement can be more readily brought about than if the affair is allowed to go on.

A representative coming in from the outside is frequently able to compose differences which the parties themselves cannot settle. Those who are involved in a quarrel are not the best qualified to appraise its merits. Investigation by a party not previously involved is always helpful. The deputy acts as a mediator between the local union and the employer, and is often able to eliminate the local prejudice or personal feeling between the two parties. It is true that the deputy comes as a friend of the union; but he takes into account other considerations than the success of the local union. As a representative of the national union, he must consider whether the local union is justified in its demands, and whether the demands have been made in the proper spirit. All of these considerations make him a mediating element more or less independent of the local union. The Cigar Makers report that one of their deputies met the employer seventeen times before a settlement was finally effected. An editorial comment says:

> The union will grow more rapidly in the future than it has in the past as soon as it is made clear that we as an organization have no desire to take an employer by the throat and make him do things regardless of whether competition, location and his business will permit.

The deputy usually remains on the ground in case of a strike and continues his efforts for an adjustment of the dispute, or he may be sent directly to take charge of a strike. A good deal of authority is given to the deputy in strike matters. His decisions are binding in some unions and subject to approval by the executive board or by general vote in others. If he is able to reach an agreement with the employer he can terminate a strike in some instances even if the

local union objects. The deputy system, or some form of it, is now found in a large number of national unions. The tendency of the local unions is to turn more and more to the national officers in case of grievance, lockout, or strike; the work of the deputy has thus increased in quite a large measure and has resulted in the peaceful settlement of many disputes.

A word of caution is in order here: national unions vary in organization, discipline and financial resources and no general statement holds true of all of them. Some national unions, for instance, do not pay strike benefits and their local unions have complete autonomy in the matter of strikes. Even in these unions the advice of the national officers is often sought if not always followed. An indication of the trend of development is seen in the Hod Carriers' and Building Laborers' Union, which pays no strike benefits but which sends its president or a special organizer to direct strikes. Other national unions give their local unions the right to strike on their own initiative when only a small number of men is involved, or when, as in some unions in the building trades, the strike concerns a particular building or job, or when no financial assistance is expected. But even in these cases just cited, a national deputy is often sent by a number of national unions if a general strike is threatened. The source of control is in the power of the purse, the granting of strike benefits by the national union, and while it is true that a refractory local union occasionally defies national authority such action is coming to be an exception to the usual rule. "One 'Get Away' with holding up the parent body," to quote the expressive words of one union official, "does not mean that it can be done whenever the whim seizes a union or a number of unions." A radical membership, likewise, adds to the difficulties of control. The secretary of the Ladies' Garment Workers' Union, for instance, reports that in addition to ordinary difficulties "our immigrant members have their heads full of revolutionary stuff, which they read in the Jewish radical press, written by men who have little sympathy with our movement, understand it less, and to whom unions and strikes are only useful as a means of carrying on the 'class war.' To these the idea of adjusting labor disputes without constantly resorting to strikes is gall and wormwood." Another group of national unions includes the older and more highly organized unions which pay strike benefits and emphasize the necessity

of discipline. In this group the deputy system has already brought about good results and it bids fair to be more effective in other national unions as time goes on.

The trend of voluntary conciliation and arbitration is seen in the procedure necessary before a strike can be called and in the development of the deputy system, but is more clearly indicated in the increasing use of trade agreements. The interesting point in this development is that there is no stoppage of work or strike pending investigation and settlement of any dispute. These agreements fall into two classes: the first where the agreement is directly between an employer's association and a national union, and the second where it is between a local union and a local employer. The Iron Molders, for instance, have had agreements with the Stove Founders' National Defense Association since 1891. Annual conferences with the manufacturers were begun by the Flint Glass Workers as the outcome of a strike settlement in 1888, but the method was not made a constitutional rule until 1891. The method of agreement of this last union was followed later by the Amalgamated Glass Workers, the Glass Bottle Blowers, and the Window Glass Cutters and Flatteners. The Operative Potters, after a disastrous strike in 1894, at their convention of the same year, first discussed the making of an agreement with the manufacturers, and after several years of discussion an agreement was entered into, to go into effect in 1900. This agreement has been renewed annually since then and no general strike has ensued. Since 1900 the Bricklayers' and Masons' Union has entered into agreements with contractors in various parts of the country providing that all differences that may arise be sent to headquarters for adjustment. Pending same, no strike can be entered upon by the members. Since 1901 there have been agreements between the American Newspaper Publishers' Association and the International Typographical Union, and later the Stereotypers', the Printing Pressmen, and the Photo Engravers' unions were included. The Coopers' International Union in 1905, the Granite Cutters' Union in 1907, and the National Association of Machine Printers and Color Mixers in 1909 entered into agreements with national employers' associations. A larger part of the membership of the United Mine Workers is now working under district agreements. The International Longshoremen's Association has also since 1900 entered into various agreements. The

various railroad brotherhoods, such as the Locomotive Engineers, the Locomotive Firemen and Enginemen, the Railroad Conductors, the Railroad Trainmen, and the Railroad Telegraphers, beginning with the Locomotive Engineers in 1874, have made agreements with the railroads governing wages and working conditions; in case their local and general committees and national representatives fail to bring about an adjustment of difficulties recourse is usually had to the mediators designated in the Erdman (now the Newlands) Act. In case the mediation proceedings are ineffective, the dispute may go to arbitration. Leaving aside the railroad brotherhoods the interesting part of these agreements is the method provided for the settlement of disputes. The agreement between the Dredge Owners' Protective Association of the Great Lakes and the International Brotherhood of Steam Shovel and Dredgemen provides for the settlement of disputes in the following way:

> In the event of a controversy arising between the parties hereto, or in the event of the men having a grievance, they shall continue to work and all such controversies and grievances will be settled if possible by the representative of the employer and the representative of the men. If such controversy or grievance cannot be settled by them, then it shall be arbitrated by choosing a third disinterested man upon whom the representative of the men and the representative of the employer may agree; if the representative of the men and the representative of the employer cannot agree, then the matter shall be submitted to the representative of the general organization of which he is a member, and the general manager, or his representative of the Dredge Owners' Protective Association of the Great Lakes, and if they cannot agree, then they shall choose a third disinterested party, and the said three shall constitute a Board of Arbitration and the decision of the majority thereof shall be final and binding, and all parties hereto shall abide thereby. It is expressly understood and agreed that said Arbitration Board shall meet within ten (10) days after the occurrence of the difference requiring arbitration has been submitted to them.

The arbitration agreement between the American Newspaper Publishers' Association and the International Typographical Union provides much the same method as the above. Local conciliation and arbitration are provided for and in case the local attempt fails or is not satisfactory an appeal may be made to National Board of Arbitration which consists of the three members of the executive council of the International Typographical Union and the three members of the special standing committee of the American Newspaper Publishers' Association, or their proxies. The finding of the majority of the national board is final and must be accepted as such

by the parties to the dispute under consideration. No aid or support is given to the firm, employer, or local union refusing to abide by the decision.

Local agreements, or collective bargaining, without an arbitration clause, are and have been numerous. The interesting development is the increasing insistence that all local agreements shall contain provisions for arbitration. The bricklayers have been foremost in this policy. The New York agreement with the Mason Builders' Association came into existence in 1885 and contains a provision for arbitration. The same policy is found in the numerous local agreements entered into by the various unions connected with the building trades with builders' associations in leading cities. The Bakery and Confectionary Workers, the Barbers, the Boot and Shoe Workers, the Brewery Workers, the Glove Workers, the Granite Cutters, the Horseshoers, the Machinists, the Pavers, the Steam Engineers, the Steam Fitters, the Tile Layers, and the Tobacco Workers, are some of the national unions which require their local unions to have an arbitration clause in their agreements. A typical arbitration clause of a local union of the Bakery and Confectionary Workers in Washington, D. C., is as follows:

> All differences between Union No. 118 and the Washington Merchant Bakers' Association (or individual firm involved) that cannot be settled through the Business Agent of Union No. 118 shall be referred, first to three committees, one each from Union No. 118, the Grievance Committee from the Central Labor Union and one from the Washington Merchant Bakers' Association (or the firm involved). If these three committees cannot adjust the difficulty then arbitration shall be accepted as follows: Two disinterested parties are to be selected by the Washington Merchant Bakers' Association (or the firm involved), one member of the Grievance Committee of the Central Labor Union, and one disinterested person to be selected by Bakers' Union No. 118, these four selected to endeavor to adjust the matter in dispute, but in the event of failure to agree the four to select a fifth member of the committee on arbitration, and the decision of this committee to be final and to be accepted by all parties involved in the question.

These local agreements must usually be endorsed by the national union in order that as uniform a policy as possible be carried out. There seems to be a growing tendency according to statistics compiled by the New York State Department of Labor to insert arbitration clauses in local agreements.

Compulsory arbitration and even voluntary arbitration when it involves the calling in of only an outside party to adjust a diffi-

culty is bitterly opposed by some trade-union officials. It is regarded as a broken reed to lean upon because the causes of strikes are according to these officials new desires and new demands which the rules of the past cannot satisfy. The question of wages and fewer hours is based on the problem whether or no the condition of the given business will justify the paying of higher wages or a reduction in the number of hours of work, and an outsider in the nature of things is said to know nothing about the relative merits of the case. Arbitration according to this view is regarded as the strongest weapon of the employer and the reason given in support of this theory is that such an arbitrator would be guided solely by the arguments of the employer concerning his ability to grant the demands. Labor organizations are advised to make sure that their demands are just and then to fight until they win them. Some unions rule out of the realm of arbitration any proposition to lengthen the hours of labor, and of course all stand firmly for the right to organize. The eight-hour day in the crafts where it exists was brought about by strikes, say trade-unionists, with the further statement that it could not have been obtained by arbitration. Another objection is that arbitration leads only to compromise and thus at times to no definite conclusions; but the answer to this is that all political and social progress of a permanent kind is based on compromise; a step at a time.

The complaint has been made that in recent years the strike has been commercialized and is now based more on the principle of expediency than on the principle of justice. The complaint contains some element of truth, but it is nearer the truth to say that the strike by means of trade-union organization and experience has been transferred from the realm of emotion to the realm of reason. Organization generally means fewer and not more strikes, conciliation and arbitration being used in the settlement of many disputes.

Strike statistics for the United States are available only until 1905. They show that there has been an increase since 1881 in the absolute number of strikes, but a slower increase, or even a decrease, in their number relatively to the growth of industry. The development seems to be in the direction of an occasional large strike as over against many small ones. A number of national officials say that so far as their organizations are concerned the adoption of a policy of conciliation and arbitration has reduced the number of

strikes. A report of the growth of the Boot and Shoe Workers' Union says that the adoption of arbitration "marked the passing of the strike" in that organization. The Amalgamated Association of Street and Electric Employes, which has for its motto, "We are always ready to arbitrate our disputes," also reports a diminishing number of strikes on account of the adoption of arbitration. Too much cannot be made of a few cases, but there seems to be a consensus of opinion among both trade unionists and employers that the reasonable method of voluntary conciliation and arbitration has been very effective in settling disputes and in reducing the number of strikes.

Many of the sensible, intelligent and fair dealing trade unions are adopting the principle of voluntary conciliation and arbitration. Strikes, it is realized, mean industrial war and, as in all wars, the strongest side and not necessarily the right side wins. The right to strike is held to quite tenaciously but the tendency seems to be to substitute reason for force. But as it takes two to make a quarrel so it takes two to make an agreement. Between the arrogant, stubborn employer on the one hand and the unreasonable, turbulent labor leader on the other there is little to choose. "Nothing to arbitrate" means that there is no necessity for arbitration, and is based on the old principle that they should take who have the power, and they should keep who can. As a sagacious labor leader observed to the writer, "nothing to arbitrate means drunk with power."

Voluntary conciliation and arbitration is not a panacea—the human equation is still there—but it furnishes a means for bringing the employer and employes together and also a method for settling disputes. Mr. H. N. Kellogg, of the American Newspaper Publishers' Association after reviewing the history of the agreements with the unions of the printing trades, declares that "arbitration is the most sensible and the best method for settling labor disputes that has been developed up to this time."

THE REVISED PROTOCOL IN THE DRESS AND WAIST INDUSTRY

By Julius Henry Cohen,

Author of *Law and Order in Industry* and *The Law:—Business or Profession?*

Events in the garment industries of New York take place with such rapidity and are so kaleidoscopic in shape that it is hopeless for one not himself a participant to keep them connectedly in mind. Yet these combinations and permutations, if analyzed, have very instructive value, and, properly interpreted and applied, bring great consequence to the industries of our country.

There is a very clear division in New York City between the men's and women's clothing industries. As to the men's industry—so far as this city is concerned—a very substantial part of the men's clothing industry was, up to a short while ago, working under a trade agreement between the American Clothing Manufacturers' Association and the Amalgamated Clothing Workers' Union, with an arbitral tribunal consisting of Charles L. Bernheimer, Dr. J. L. Magnes and Dr. Henry Moskowitz, as a committee of moderators. This trade agreement was recently abrogated by the employers because of the failure of the workers to observe a decision of the board of arbitration. As to the women's industry—the women's wear industry, on the workers' side, is largely represented by the International Ladies' Garment Workers' Union. The employers are divided into various groups. The manufacturers of cloaks, suits and skirts are now represented by one association, the result of a consolidation in 1915 of what had been theretofore two employers' organizations; the manufacturers of dresses and waists are represented by another association, the manufacturers of children's dresses by a third, the manufacturers of ladies' undergarments by a fourth, the embroiderers by a fifth, and the house dress and kimono manufacturers by a sixth. All these trades are now working under trade agreements with the union. It was in the cloak, suit and skirt industry, covering about 60,000 workers, that the protocol plan was first devised and kept in operation for a period, roundly, of about five years and a half. It will be recalled

that the protocol was terminated in 1915, subsequently revived by the action of the Mayor's council of conciliation, consisting of Dr. Felix Adler, Chairman, Louis D. Brandeis, Henry Bruère, George W. Kirchwey, Charles L. Bernheimer and Walter C. Noyes, and again terminated in 1916 by the union upon the charge that the manufacturers had refused to follow a decision made by the Mayor's council of conciliation. The lockout and the strike that followed are current newspaper reading. I have endeavored, in *Law and Order in Industry*, to give an impartial review of these experiences up to the time I ceased to act for the employers (August, 1915).

In the dress and waist industry recent developments bear materially upon the general movement for progress in industry. Some of these developments I believe warrant immediate consideration on the part of those who would seek to secure fairness and equity in industry through processes of law and order. As the result, first of conferences between the parties and, later, awards by the board of arbitration (Hon. Julian W. Mack, Hamilton Holt[1] and Robert W. Bruère), the dress and waist protocol originally made in 1913 has been revised and readjusted to meet the experiences of the past three years.

I think Mr. Morris Hillquit (counsel for the International Ladies' Garment Workers' Union) will agree with the statement that, in many respects, this recently revised protocol, over which he and I fought in the making, is as superior to the old protocol in the cloak industry as our federal Constitution is superior to the old Articles of Confederation. Indeed, Mr. Hillquit stated in the course of the proceedings before the board of arbitration that it was his hope that the document devised through these legislative processes would become the model for all the industries with which the International Ladies' Garment Workers dealt. In view of the pioneer nature of these protocols and the unusually chaotic condition of the industries in which they have been evolved, it would be rather anomalous if experience did not develop weaknesses and necessitate new invention. If one will look at the Patent Office models showing the evolution either of the modern electric locomotive or the modern automobile—mark even the improve-

[1] Mr. Holt resigned in May, 1916, and Charles L. Bernheimer was substituted in his place.

ments of the past decade—he will appreciate why a piece of newly devised industrial machinery intended to serve the needs of a complex, highly emotional and unorganized industry, requires constant readjustment and changes to meet weaknesses revealed in practice.

There seems to be a rather current belief that there is presented to employers today a clear choice between peace and war. This is a fundamental error made by nearly all critics of the protocol. The fact is that as long as *we* live, and for a longer period still, we shall have *conflict* in industry. We shall not have *peace*. The real choice is not between peace and war, but between *conflict* and *conflict*. Or, put in another way, the question is: *How shall inevitable conflict be met so as to conserve the best interests of all parties concerned?* War carries with it incidents of physical violence, law-breaking, damage to property, peaceful or unpeaceful picketing, starvation of workers, ruination of employers, disturbance of the public peace—the general breaking down of moral restraint and discipline. Just as wasteful as war, it is the bare truth to say that in carrying the burdens of the waste, the cost falls more heavily upon the worker. Not that employers do not suffer; but the suffering cannot be so poignant. While in the ranks of employers and workers alike are always to be found men eager to shake the fist, eager to beat the head, to smash windows or to "starve 'em out," the cooler, reasoning, experienced men, who, either through personal suffering have learned their lessons, or through trained imagination understand the cost, counsel against war—*except as a last resort*. Now, obviously, both employers and workers have *rights*, and each collective group has its *policies*. As in national, state and municipal affairs, there is conflict between opposing policies and ofttimes bitter conflict between the rights of various interests in the community. We do not settle *such* conflicts by violence or by starvation. Defective as our legislative and political processes are—with all the evils connected with our present electoral machinery—we still hold fast to our faith in the parliamentary and juridical method. We sometimes wait a decade before courts modify their decisions. In the retrospect, we wonder how error is so frequent, and yet we wonder why it is not more frequent, since the human animal, with all of his infirmities of temper and intellect, is the instrument through which we operate.

Within the limits of an article such as this, it is, of course, impossible to define the scope of the general conflict. For the present, it will be enough to say that the modern employer, willy nilly, is bound to represent and express in social economy today a sturdy and justifiable movement for efficiency, economy and elimination of all waste. To secure the result he must stand for a better equipment of the workers and a better discipline in the shop. "Shop organization" is the key to shop efficiency. The direction of the shop organization, the maintenance of discipline, and the selection of men upon the basis of efficiency are essential conditions of the progress of industry. This, of course, does not mean that he should ignore "the human rights of the worker."

On the workers' side, we find—whether we like it or not—they have determined, as they have the right to determine, that the regulation of wages and conditions of labor shall no longer be treated as a matter of individual bargaining. The trades union is here and here to stay. It represents something that has an inherently sound basis—whatever sound criticism from time to time may be made either of its acts or its policies. The trades union is the workers' "attorney in fact"; it presents in organized fashion what the workers believe to be their due. It would be an anomalous situation if such organizations did not often ask for more than they were entitled to, or more than the particular industry could stand at the moment of their asking. Here, then, is *conflict*—conflict similar in many respects to the conflict over definite pieces of legislation at Albany or Washington. How shall it be handled? By processes of reason, by analysis of the facts involved, by application of sound economic principles?

But behind all of the specific proposals we must admit that there is something more—there is a movement for the greater democratization of industry, the effort to control, or, if need be, to destroy the heretofore existing autocratic government of the employer in industry. It is, indeed, the consciousness of this movement on both sides that brings the real clash. Mr. Rockefeller was made aware of it. With the aid of Mackenzie King, he has earnestly endeavored, I believe, to meet it in his *New Industrial Republic*. Let us make no mistake. We are dealing with tremendous social forces—*the inevitable movement for industrial discipline and efficiency coming up one avenue and the equally inevitable move-*

ment for industrial democracy coming up another. The two should not clash; they are not inherently antagonistic to each other; but the effort of each to press forward its particular claims or application at the moment brings conflict. In this conflict each side takes its stand and fights. But how fight? With fists, with clubs or hunger as the weapons? Starvation versus violence? This is not the American way of meeting great issues. It goes against our grain to settle such conflicts with the gun or the bludgeon. It makes law and order a synonym for oppression, rather than for fair play.

On the other hand, the appeal to arbitration comes sometimes from employers and sometimes from workers, as the refusal to arbitrate comes sometimes from one and sometimes from the other. In 1894 the country is plunged into industrial war. Then the railroad managers refuse to arbitrate. In 1916 the railroad managers plead for "the sacred principle of arbitration in industrial disputes." Now the men refuse. In 1916 the president of a street railway system and an entire organization of manufacturers refuse to arbitrate, and in both instances the workers plead eagerly for "the sacred right of arbitration." How comes it that the refusal to submit industrial controversy to impartial review comes sometimes from the employers and sometimes from the workers? And why is it that society itself, refusing in this day to permit men to settle private controversy by private war, still suffers lynch law to reign in the field of industrial disputes? Is industrial controversy, involving large masses of people, disturbing whole communities, bringing starvation or bankruptcy or both in its train—is it a private matter—when even the laundress, if she is refused her pay, may not take her 60 cents from her mistress's pocketbook, but must go to court and sue? Let men be right as heaven itself, who shall be permitted by coercion to win his way, to trample over neutrals, to hack his way through to the goal of his wishes? We allowed capital to do it. For a while we gave it free rein, until it became unbearable—then society found a way to curb capital. We let the nations do it, yet now we earnestly believe that a way will soon be found to curb even the nations. How soon shall we say to *both* capital and labor: "Neither of you shall coerce the other by force of your power. Justice, not might, shall determine this controversy between you."

Why has the judicial method for settlement of industrial disputes found such opposition?

There are two important reasons among many. The railway men say:

"Yes, we went to arbitration, and got beaten. The impartial arbitrator showed he had the capitalistic bias."

The cloak manufacturers say:

"The arbitrators are uplifters. They always sympathize with the men. They give us the worst end of it."

We must not delude ourselves. Men have had their fingers burned at the furnace of arbitration. There is no quarrel with the courts when the judges are free from bias, go into all the evidence, courageously decide the issues and decide them right; but when judges are biased, are inefficient, lack courage or understanding, then the country demands "recall of judicial decisions" or "recall of judges," until, awakening to the real trouble, we find the right men, put them in the right places, and secure a renewal of confidence in judicial machinery. Even then judicial error multiplies. The latest volume of Appellate Court Reports discloses how judicial error creeps into the very best and unbiased of judicial intellects. Do we, then, prefer anarchy or Lynch law? No; we take the judicial method as we take matrimony—for better or for worse. But there is another reason for the refusal to arbitrate, much more fundamental and much more difficult to correct. It is the "balance of power" theory applied to industrial affairs. Nearly all of the old writers on collective bargaining approved of it on the theory of checking abuse of power by employers by the organization of the workers, and vice versa. A strong employers' organization will curb a strong union from abusing its powers, just as a strong union will curb the employers. The theory resembles the "balance of power" theory in international affairs, whose futility as a means of protection to neutral or weak powers is now graphically demonstrated. The truth is that in industrial affairs, as in international affairs, the "balance of power" theory is good when you hold the balance. When the other fellow holds the balance it is all wrong. Now, balance the power of the strike with the power to discharge—how comfortable for the employer if there is a large surplus of labor; how comfortable for the workers when there is a large shortage of labor! No more empty weapon of

defense can be given to an employer than the right of discharge in the height of the season when he cannot get help and the customers are clamoring for their goods. In Bridgeport the Remington munitions works take all the men who go on strike elsewhere. What power is the right to discharge in such a time? When the scale turns and there is shortage of work again, then the power of the strike becomes an empty weapon for the workers.

When power is asserted to coerce acceptance of one side's view, it prevails only for the time being. Napoleon prevailed until all Europe turned. The Kaiser got almost to Paris before weakness could gather up her skirts and bring new power to her side. Schrecklichkeit has its day and then it gets the day after. And "the day after" arrives sooner now than it did in Napoleon's time. New powers unthought of are released to punish the offender. It is a simple psychological law that decision produced by coercion begets rancor, hatred and release of new powers of coercion; the defeated party retires only to hit the other fellow a crack when he finds him a little groggy on his legs. So industrial warfare goes on and on and on—action and reaction—until each side is driven to "quits," solely because of exhaustion. Thus, while we put the emphasis on the necessity for avoiding waste in industry, we resort to the most wasteful process for adjusting industrial controversy.

The protocol method, in its final analysis, is merely a human effort, earnest though imperfect, to apply to inevitable conflict in the industrial field the modern processes of reason, to borrow from constitutional government, from legislation, from jurisprudence, from social economics, from business, from everywhere, the best that human brain has yet evolved to establish a more orderly and less wasteful method for meeting such crises and concrete issues as they emerge from below. For want of a better method we adopt what we are pleased to call the legislative and juridical.[2] The choice for the employer and the worker, too, therefore, is not a choice between *peace* and *war*, but a choice between *conflict on the plane of the savage* and *conflict on the plane*

[2] See in this connection the following recent articles: *The Development of Government in Industry*, by Earl Dean Howard; Editorial Note: "A New Field for Systematic Justice," by John H. Wigmore, *Illinois Law Review*, March, 1916; "The Need for Industrial Jurisprudence," by Walston Chubb, *The Standard*, March, 1916.

of the civilized man. The latter plan, of course, involves honorable, rational, fair dealing—effort to agree where agreement is possible, frank agreement to disagree where agreement is impossible, and the application of the process to the disposition of disagreement. Imperfect as we know these processes to be, we know they are better and less wasteful then the processes of the savage. Who is satisfied with the work of state legislatures or of Congress or of municipal government generally, or even with the courts? We are just a little bit farther away from darkness, that is all. The choice is between something *worse* and something *better*, not between something *wholly good* and something *wholly bad.* It is a curious thing that business men, who are most ready to avert a lawsuit by compromise or commercial arbitration, are often the first in their labor disputes to insist upon a fight. They fail to judge by putting side by side one set of conditions with another. There is no panacea yet invented to cure these "labor troubles." They are *labor troubles* in another sense; they precede the birth of new ideas.

The revised protocol in the dress and waist industry will justify scrutiny because it is a recent effort to meet industrial difficulties with resourceful invention. It is more than a renewal of amicable relations now having a three years' background. It is a re-statement, a re-application of principles, a renewal of effort to make the statement of these principles more definite and their application more workable in practice. Within the limits of this article it will not be possible to give a full résumé of the provisions of this document.[3] But several points of general interest may be considered now.

First of all, upon the efficiency and economy side, the revised protocol recognizes clearly that, for the present at least, the selection of workers, the assignment of work, the organization of the factory and the determination of all administrative problems must be left with the employer. It is the abuse of this power, where it results oppressively to the individual worker, that furnishes the basis for complaint. The new statement is contained in the following:

> The employer is entirely free to select his employes at his discretion, free to discharge the incompetent, the insubordinate, the inefficient, those unsuited

[3] Copies will be available presently for all those who are interested.

to the work in the shop, those subversive of order and harmony in the shop and those unfaithful to their obligations. He is free, in good faith, to reorganize his shop whenever, in his judgment, the conditions of business should make it necessary for him to do so, and he is free to assign work requiring a superior or special kind of skill to those employes who possess the requisite skill.

In the next place, there is a new treatment of the matter of shop strikes. There is probably nothing which is so irritating to employers as to find that protocol inhibition of shop strikes is not effective as an insurance policy. Employers expect in joining an employers' association under agreement with the union to secure insurance coverage against strikes. Shop strikes are not always official strikes. In reality, they are more often shop *mutinies*. To attack this disease has occupied the time and attention of association and union officials for several years. The recent award of the board of arbitration in the dress and waist industry made after weeks of debate and consideration is the most forward step ever taken, so far as I know, in any collective agreement either in this country or abroad. This new award provides that:

If in the case of a shop strike, the union shall order the workers to return to work and if they shall fail to obey such order, *they shall forfeit all rights under this protocol* and shall in addition be subject to punishment by the union to be reported promptly to the association.[4]

If a chief clerk or a deputy or other officer of the union or association shall condone or connive at a shop strike or a shop lockout *or fail to perform his duty in respect thereto*, the organization whose member is affected adversely thereby shall have the right to complain to the other organization and ask for the punishment or removal of such officer. The failure of such organization to act promptly and fairly on such complaint shall constitute a grievance to be presented to the board of arbitration. The board shall have power to direct that organization to take such disciplinary measures against such chief clerk, deputy or officer, including fine, suspension and removal from office, as such board may deem proper.

If either organization shall fail to carry out any of the duties required under this agreement to be performed by the organization as such, the other organization may present such failure to the board of arbitration as a grievance, and the board of arbitration shall have power to impose such fine, as in the judgment of the board shall seem just or necessary in the premises; the fine to be paid into the treasury of the board of protocol standards.

A willful neglect or refusal to comply with a decision of the committee on immediate action or of the board of arbitration by a member of either organization shall have the effect of depriving such member of any of his rights under the protocol.

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[4] Similar provision operates against the employer in case of a lockout.

I asked the board of arbitration, on behalf of the employers, for the following provision:

> If the chief clerk or any deputy shall fail to perform his duty under this article, or if any officer of the union shall authorize a shop strike, the union will make good all pecuniary damage suffered by the employer in consequence thereof.

The board declined to give the employers a remedy by way of damages. Instead it first established a system of penalties, and next, defined the duties of the parties in dealing with shop strikes or lockouts. The board makes it clear that an official of either organization guilty of violating the protocol is to be disciplined upon the finding of the board of arbitration.

I am not prepared to say that this is as perfect a legislative provision as can be devised to meet this evil, but it marks one advance. It clearly accepts the principle of organization and official responsibility. It definitely fixes the duty of the officers of each organization to preserve order and enforce the law of the parties' own making, and it vests in the final tribunal complete powers of discipline. When the import of these provisions is fully realized by those who are affected, I am satisfied that they will minimize, if not wholly eradicate, shop strikes.

Next in order of importance to employers is the competitive effect of a protocol arrangement. The union has never failed to admit the necessity for enforcing upon non-association employers the same conditions of labor as are agreed upon with the association. The difficulty of making good in the past has come from the absence of available machinery for enforcing standards against non-association employers. In the non-association shop the worker and the employer could, by private agreement, waive standards, though on paper the contract with the union would require the same standards as those provided in the protocol.

The attempted solution of this difficult problem in the revised agreement in the dress and waist industry is the creation of the *board of protocol standards*. This board is made up of nine persons, three representing the association, three representing the union and three representing the public. It has no power to *make* standards. On the other hand, it is given comprehensive power to investigate regularly throughout the entire industry and to enforce standards to the full extent of the power of both organizations. It is likewise given broad power to settle controversies relating

to the application of standards already agreed upon. The scheme of its organization has been borrowed from the scheme of the joint board of sanitary control—the board which has done such effective work in elevating and enforcing standards of sanitation and safety throughout New York City in both the cloak and suit and dress and waist industries, and is now practically engaged in rebuilding and relocating the entire factory district of the city. The union is required to file with the board of protocol standards copies of all agreements it makes with non-association employers. Each of these agreements contains a provision authorizing inspection of the shop and examination of the books of account of the employer for the purpose of determining whether or not the standards agreed upon are actually enforced. There is thus provided full opportunity for impartial investigation into the facts in the case of the non-association employer as well as in the case of the association employer.

One result of the adoption of this principle has already taken place. The board of arbitration made awards advancing the minima standards of wages and reducing the maxima standards of hours of labor and of overtime, and the union agreed to enforce these awards in all their dealings with non-association employers. Later on, the union filed with the board of arbitration and submitted to the inspection of the association all of the contracts it had made with such employers. Examination of these contracts revealed exemptions and modifications sufficient to justify complaint upon the part of the association that many of the awards made by the board of arbitration had in fact been ignored in the dealings with non-association employers. Upon presentation of this evidence, the board of arbitration modified and revoked its previous awards, adopting the principle that the conditions in the association employers' shops were to be no more onerous than those imposed upon non-association employers. Stripping the situation of its technical features this means, broadly, that the board of arbitration, when presented with the facts, accepts as a guiding principle that greater burdens are not to be imposed upon members of the association than the union can enforce against non-association competitors.

As this new piece of industrial legislation is being put into operation, it has already revealed imperfections; one point—the expensiveness of its operation—has already become apparent.

But may we not record the hopeful reflection that it marks a distinct advance in applying analysis and ingenuity to a most troublesome industrial problem?

There is in the needleworking industries another sore spot making for acute and difficult situations. That is, the method of settlement of piece prices. Piece prices in the dress and waist, as well as the cloak and suit industry are settled by the process of haggling, the workers in the shop represented by their price committee, the employer acting either personally or through the foreman or superintendent. There are no fixed standards of prices to govern, and delay in the settlement of prices makes not only for friction, but for great waste. The protocol of 1913 in the dress and waist industry took a step forward. While in the cloak industry the process of not working upon "unsettled garments" continues to this day, in the 1913 dress and waist protocol it was provided that work *should not be stopped*, but garments should be made with the provision that when the prices were settled, they operated retroactively. In the cloak and suit industry, until the award of the council of conciliation in July of 1915, there was *no base rate* upon which the piece rate might be estimated. In the 1913 dress and waist protocol a base rate was fixed; that is to say, thirty cents an hour was fixed as the base, which, multiplied by the estimate of the number of hours it would take an average skilled operator to make the garment, would make the piece price on the garment. This base rate was determined upon the theory of the average skilled operator, and covered a continuous hour of work. In other words, it was assumed that an average skilled operator should make thirty cents for each continuous hour of work; that, therefore, the more skilled operator would earn more than thirty cents an hour, and the less skilled would earn less. Assuming that a garment would take five hours to make, the piece rate would be $1.50. The worker who could make it in four hours would get $1.50 for four hours' work, and the worker who took six hours would get $1.50 for six hours' work. But how were you to determine in advance how many hours it would take the average skilled worker to make the garment? There was the rub. It presented and still presents a most difficult technical problem to solve. In 1913 the solution accepted was the *shop test*. Employer and worker each selected one person of average skill to test out the garment,

and upon the basis of such a test the number of hours was fixed, multiplied by thirty cents, and thus established the piece rate. Actual experience demonstrated that the *shop test* was not a practicable or fair test; it produced conflict and friction, and both sides sought a new and better method. The revision of the dress and waist protocol presents now the plan or scheme of the *test shop*. The *test shop* is a place where tests are to be made under impartial supervision, the shop being managed by representatives of both the association and the union. *The controversy is thus taken away from the shop, where it causes friction, to a place where it is to be settled impartially by people not connected with or interested in the shop.* It is too early yet to report upon this experiment.

Still more important is the application of the "log" or "part system" to the fixing of prices. In the *Report on Collective Agreements between Employers and Workpeople in the United Kingdom* issued in 1910 will be found numerous illustrations of what is known as the "log system," wherein the mechanical operation is split up into parts and a definite estimate of time fixed for each part. These standards, applied to each job, fix the piece rate. In the dress and waist industry, it had been found practicable, for the purpose of fixing piece rates, to divide the garment into parts. The board of arbitration has now determined that this system shall be applied *throughout* the industry, so far as it can be made workable. The importance of this change in reducing the haggling process to a minimum cannot be overestimated. When the price committee and the employer come now to negotiate, controversy will be narrowed down to one particular part of the garment, and this particular part, if still in controversy and unsettled, will be submitted to the *test shop*. I do not believe anyone has any hope of complete standardization of piece rates in the industry. The variations in each factory are so great, the differences in shop efficiency so manifold, that the same rate could not be applied to the same garment in every shop. The method and processes of manufacture and the condition of operation must be taken into account. But, as the result of this innovation, certain processes will be standardized for the purpose of fixing piece rates.

There remains neither time nor space to consider other features of the new protocol, such as the registration and regulation of apprentices throughout the industry, the pay for overtime work,

for piece workers, the awards of increases, the change in holidays, the limitations of overtime, the equal distribution of work, the registration of outside shops, or the rules defining the "preferential union" shop. These matters must be treated separately and upon another occasion.

The big problems confronting both parties, however, have found here new formulations and new remedies. These big problems, as I have stated them, relate to:

(a) Efficiency in the shop
(b) Discipline in the shop
(c) The repression of shop strikes
(d) The elimination of unfair competition
(e) The less wasteful method of settlement of piece rates

The revised protocol in the dress and waist industry will justify careful study by all who are interested in the *rational* method of solving industrial difficulties arising from day to day in concededly one of the most complex of complex industries. Whether or not the methods are perfect, time only will tell. It does, however, represent an honest, earnest effort to solve highly difficult industrial problems. Of one thing we can be certain. These new methods are less wasteful than the methods of anarchy and lawlessness, however defective they may prove to be in the light of actual experience.

EXPERIENCE OF HART, SCHAFFNER AND MARX WITH COLLECTIVE BARGAINING

By Earl Dean Howard,

Director of Labor for Hart, Schaffner and Marx; Professor of Economics, Northwestern University.

On May 1, 1916, Hart, Schaffner and Marx renewed their agreement with their employes for another period of three years. There has been very little change in the terms of the agreement, the principal provisions being the increase of wages of approximately 10 per cent, due to the changed conditions in the market of labor. The hours of labor were reduced from fifty-two to forty-nine per week. This agreement has already been in existence for five years and has received the consideration of the Federal Bureau of Labor, the Federal Industrial Relations Commission and many manufacturers in various industries.

Many manufacturers have already come to the conclusion that there has been a great change in conditions, and that to meet these conditions they must change their methods. Regardless of what their theories as to labor unions and industrial democracy may be, they realize that it is a condition and not a theory that confronts them. To such persons a true statement of the result of any experiment with new methods of dealing with employes is of tremendous interest.

The Hart, Schaffner and Marx principle of dealing with labor is not a patent medicine which can be applied under any and all conditions. Rather, it is an attitude of mind and faith in certain principles of right dealing which once were regarded as a matter of faith, but which experience has demonstrated to be sound and profitable.

After a prolonged and costly strike in 1910, which came as a great surprise to this company, they accepted the principle that the good-will of the employes was as necessary and desirable as the good-will of customers, and that henceforth every effort should be made to cultivate this valuable asset. Accordingly, a new department was created which should have charge of all the relations of

the company with its employes, and nothing should be done which affected their interests without the consideration of this department. A very brief agreement for arbitration had been signed with representatives of the employes. After the decision of the Board of Arbitration was reached concerning the wages and hours and certain matters of demands, it was decided to continue the board and make it part of the permanent scheme for adjusting complaints.

The plan is a form of representative government, neither an autocracy nor a pure democracy; it avoids the domination either of a monarch or a mob. All parties whose personal interests are involved in the business submit themselves to the rule of reason, yielding up all arbitrary authority which conflicts with the principle of right dealing to which all have promised allegiance. Rules, based on the highest concept of economic justice deliberately thought out by men whose judgment at the time is not blurred by personal interest, are considered superior to the personal judgment of a general manager or a business agent. The ideas of democracy given out by our schools and universities, by press and platform, are being absorbed by workers and being applied by them to their own situation. If representative government is good in politics, why not in industry which touches their interests so much more intimately? This is the reason for the restless clamor which underlies the incessant demand of labor for recognition. And that is the demand we have endeavored to meet in the Hart, Schaffner and Marx agreement.

Government is nothing more than an effort to remove conflicting interests from the arena of brute struggle, and to submit them to some rational and disinterested agency for adjustment. Whether the agency be a court or a legislative body it still represents a common or public interest as against the individual interest of claimants or contestants.

Experience has shown many times in situations where a conflict of interest appeared inevitable that a plan could be devised whereby the interests of both parties might be served without loss to either. It happens more frequently than would naturally be supposed that one or both parties are mistaken as to their own best interests, so that the solution of some difficulties is often much easier than appears at first.

Most industrial conflicts, like the present European War, involve losses to all concerned all out of proportion to the value of the interests at stake. Therefore, any settlement whatever of a dispute is likely to be better than open and continuous disagreement, breeding resentment, hatred, fear and violence. When a disputed point is once settled, especially by an authority respected by all, it is not difficult to adjust one's interests to that condition.

Employers are seldom interested in labor agreements and similar matters until a strike or some labor troubles force them to consider some change or amendment to their system of management. When the crisis comes and immediate decision is required, they find themselves to be led or forced into an agreement entailing serious sacrifices and tolerable only because it keeps the business going.

Labor leaders, on the other hand, are usually experts in these matters up to the limit of their ability and intelligence. This is especially true in the garment trades at the present time. The protocols and other types of agreements in the eastern markets have educated a considerable group of leaders in the science of industrial government. In sheer self-defense the employers are therefore compelled to inform themselves on this subject.

Under the original Hart, Schaffner and Marx agreement in 1911, an arbitrator was chosen by each side: Mr. Clarence Darrow by the employes, and Mr. Carl Meyer by the employers. Failing to secure a third member of the board, the two met together with representatives of both sides, and were able to negotiate successfully a two years' agreement. This provided for an open shop, recognized and made compulsory the maintenance of a grievance department such as had already been organized, granted a horizontal increase of wages of 10 per cent to all employes in the tailor shops, and specified 50 per cent extra pay for overtime work. There was no specific recognition of the union. The Board of Arbitration was to continue during the agreement, and to adjust all grievances referred to it.

A complaint department was organized providing a system by which any person feeling aggrieved might have an opportunity to present his complaint and have it heard and carefully attended to. Thus was reëstablished the lost personal contact between the proprietors of the business and the employes. There are now so many avenues through which complaints may be made without

detriment to the complainant that the company may feel quite sure that no undiscovered abuses can exist.

The next step which has proved to be of vital importance was the centralizing of all discipline. The foremen and superintendents, who formerly were authorized to maintain discipline, were relieved of this responsibility, and it was assumed by the manager of the labor department. Whenever there is any delinquency the offender is suspended from his position and given a memorandum for immediate presentation to the discipline officer who is able to dispose of the matter in an impartial manner with an eye single to the welfare of the whole organization. There is a growing tendency at present for many matters of discipline to be referred to the workers' organization, thus giving opportunity for experience in self-discipline.

Leaders among the workers soon appeared, who began to command the respect and confidence of the company. Mr. Sidney Hillman, a young Russian Jew, exhibited such tact and patience, and such good judgment and administrative capacity, that he soon won a personal recognition which later developed into a recognition of the organizations he represented. Three years later, after having risen through all the responsible local union officers, he became general president of the Amalgamated Clothing Workers of America.

After a year it became apparent that a Board of Arbitration composed of two lawyers unfamiliar with the technical details of tailoring, could not possibly hear satisfactorily all the cases which the workers desired to have adjusted by the highest authority. It was natural that among the eight thousand people taken on after the strike to rush out the delayed work some should prove incompetent. It was also natural that these should be especially active in the union, and, in case of discharge, should clamor for its protection, claiming discrimination on account of their union membership.

Such cases were difficult to adjust, and, by mutual agreement, another adjusting body was organized, called the Trade Board, the members of which were foremen representing the company and union employes representing the people. Mr. James Mullenbach, then serving as acting superintendent of the United Charities of Chicago, was selected as chairman. This board was created to

hear all unadjusted and technical cases, and to adjust piecework prices whenever changes were required (collective bargaining). Appeal might be taken to the Board of Arbitration. Deputies were chosen by each side to carry on the business of the Trade Board, and to gradually assume charge of all the relations of the two parties.

The principal kind of grievances which come up are of course with reference to piecework prices, and these are all settled by the special committee of the Trade Board; other matters concern discipline, delinquencies in workmanship, distribution of work among the pieceworkers, salaries of week workers, complaints of overcrowded sections, claims of mistreatment and discrimination by the foremen, etc. At the beginning the sittings were numerous and prolonged, but gradually the decisions became precedents, and the deputies were able to adjust many cases on this basis without recourse to the Trade Board. The complaints come so informally that it is difficult to state what proportion are settled without reference to the board, but I should say that 75 per cent are. Of the 25 per cent which go to the Trade Board, probably one out of ten or fifteen are appealed to the Board of Arbitration. Such an appeal is taken only when some principle seems to be involved which has hitherto been unsettled. Fourteen cases in all were appealed to the Board of Arbitration the first year, and these cases necessitated choosing a third arbitrator, Mr. J. E. Williams, of Streator, Illinois.

The two-year term of the agreement expired on April 1, 1913. The unions, feeling that they could not maintain their efficiency under the open shop agreement on account of the disposition of a great number of people to enjoy the benefits without contributing to the support of the system, demanded a strictly union shop. The company felt that the time was not yet ripe for this step, and refused to negotiate a new agreement upon that basis. The conferences, which had been held almost continuously, were abandoned about two weeks before the end of the agreement.

The two chief deputies and arbitrator Williams did not lose faith in the system which they had so laboriously built up. They realized that, with the general feeling of good faith on both sides, the right way to avoid an open break existed and could be discovered. They frankly recognized the impelling motives of each party, the need for efficiency of production on the part of the company, and the need for sufficient strength on the part of the union to make

itself effective in protecting the worker. Without neglecting either of these interests, they produced an agreement, the central feature of which was the preferential shop. This was so devised as not to interfere with the productive efficiency of the shop, while it created an inducement for the employes to become members of the union. It was calculated to stimulate the unionization of the shops as rapidly as the people were ready for it. Most of the other details of an agreement were left for the decision of the Board of Arbitration, which, by this time, possesses the unlimited confidence of all concerned.

During this five-year experiment, most of the fundamental issues which arise in the employer-employe relation have been met and adjudicated. These typical cases have revealed principles which may some day help to form an established code of governing rules for industry and supplanting the present method of competitive bargaining and conflicts settled by economic strength.

The right to discharge rests with the company absolutely. In cases of discharge, the burden of proof is upon the employer to show that such discharge is necessary for the welfare of the organization. He must show that any alternative action involving less hardship on the individual is inadequate. The Trade Board and Board of Arbitration may reverse decisions of the company whenever it is shown that there was not sufficient cause for discharge. As a rule, men who are delinquent in workmanship are given another chance by the Trade Board. The board for a long while was very weak with reference to discharges on account of striking, but recently they have taken a much firmer attitude. I refer here to the small stoppages of work over disputed questions. I venture to say that about half the discharges made by the company are substantiated by the Trade Board; of course, it will be understood that some of these discharges are made with the expectation that they will be reversed, but the disciplinary effect of the whole procedure is very good in maintaining discipline. The company as a general rule does not object to the Trade Board reinstating discharged people if it gives them a warning and makes it clear that any future offense will lead to positive discharge.

So long as there is an adequate supply of labor available in the skilled trades, the employer must not introduce an unreasonable number of apprentices into the trade.

The ordinary concept of the employer is that labor is a commodity purchasable as other commodities. He strives to get as much as he can as cheaply as possible. The job or opportunity to work is his private property and the workman has no claim upon it. The new principle gives the worker a right to his job which can be defeated only by his own misconduct. The job is the source of livelihood to the worker exactly as his capital is the source of livelihood to the capitalist. In the slack season whatever work there is shall be divided among all as far as practicable.

Managers who are directly responsible for the efficiency of the shop should not be burdened with the responsibilities of discipline. This function is one of great delicacy. If badly or unskillfully performed it is a fruitful source of antagonisms and personal feelings, which is like sand in a complicated machine. If, however, it is handled with judgment and resourcefulness by an official who is detached from an immediate interest in the operation and who can look forward to ultimate results, the function presents great opportunities for gaining the respect and good-will of the employes. Discipline cases afford the finest opportunities for educational work, both with worker and foreman.

So long as the offending employe is to be retained in the factory, any disciplinary penalty must be corrective and no more severe than is necessary to accomplish the best results for all concerned. Most offenders are victims of wrong ideals or mental deficiencies, the remedy for which is not punishment but help and instruction. Delinquencies in management can frequently be discovered and the manager or other executive may need the services of the expert discipline officer quite as much as the original offender. The efficiency of the discipline officer should be measured by the proportion of ex-offenders who have ultimately become competent and loyal friends of the company. It is his prime duty to prevent and remove from the minds of the people all sense of injustice in their relations with the employer, which is the fundamental cause of the bitterest industrial conflicts.

The great defect in autocratic governments is the lack of adequate and intelligent criticism. Automatically-governed business enterprises suffer from the absence of their wholesome check. Organized employes represented by spokesmen who are protected in that function, together with a labor department responsible for

the good-will and welfare of the employes, constitute a critical check on bad management and the source of valuable suggestion for more efficient management. Pieceworkers, especially, are vitally affected in their earnings by the quality and efficiency of the management. Subordinate executives in the factory may conceal this inefficiency from their superior officers for a long time, but a system of free complaints makes this impossible.

The primary tribunals or Trade Board should settle finally all disputes as to facts; appeals should be taken only when disputed standards are involved. Each case before the Board of Arbitration is an opportunity to establish one or more standards. Thus, unless the industry is one of great changes, the board will find the need for its services grow gradually less as both parties learn to be governed by standards. The immense value to an industry of established standards should reconcile the parties to the time consumed in deciding some comparatively unimportant case which happens to afford opportunity for creating a standard. The board in such cases should get expert and technical testimony from all sources through witnesses and committees of investigation, so that the work is done once for all.

We are so habituated to the idea of labor as a purchased commodity or service, that it seems to us quite natural for the price of it to be determined by the law of supply and demand through the bargaining process. When employes are unorganized, they are unable to bargain with a large employer on anything like equal terms; when they are organized, the bargaining may take the form of industrial warfare. Bargaining cannot be equitable and fair unless either party has the right to withhold what he is offering to the other. This principle is so true that the courts and legislatures have been forced to legalize strikes and picketing, notwithstanding the tendency of these measures to subvert law and order and to jeopardize the right of person and property.

In the system here described, the rate of wages and piecework prices existing at the beginning of the agreement was accepted as the basis. Certain horizontal advances were granted to prevail during the term of the agreement. At the end of that period the whole question is reopened. If both parties agree to arbitrate this major question as they do all others, the burden is thrown upon the board of arbitration of finding some governing principle from which a rational decision may be derived.

THE ARBITRATION PLAN OF WILLIAM FILENE'S SONS COMPANY

By Joseph H. Willits, Ph.D.,

Wharton School of Finance and Commerce, University of Pennsylvania.

Thoughtful industrial managers are beginning to appreciate what havoc the fear of loss of a job works in the mind of an employe. An ever-present sense of impending calamity spells lack of hope, ambition, interest and efficiency. Two of the chief of these first-rate creators of doom are the fear of loss through the ending of the job and the fear of dismissal through the unjust and arbitrary act of an executive. Significant attention is being given to the lessening of these two forms of this evil. The firm of William Filene's Sons Company has, by the establishment of their arbitration agreement, taken a significant step in preventing arbitrary dismissal of employes.

An Arbitration Board of twelve members is elected semi-annually by secret ballot by *all the employes* of the store. In practice, nearly all of the members of this board are from the rank and file, only two or three being minor executives. Any employe of the store may bring a complaint before the board, covering such cases in which he or she "has reason to question the justice of a decision by anyone in a higher position or by the corporation or by a Filene Coöperative Association Committee or between the employes when the difference is in relation to store matters."

Some of the other rules follow:

The decision of the board is final for all cases arising within its jurisdiction.

In cases of dismissal a two-thirds vote of the members of the Arbitration Board present at the time the case is heard shall be an order on the store manager for reinstatement, provided that a majority of the full board be present.

In all the other cases a majority vote of the entire board will decide the case and in cases of salary reduction shall be an order for refund.

Both parties in the case may be present throughout the taking of evidence.

The appellant or the defendant may choose a person to help present his case before the board or to act as his representative.

After hearing witnesses called by both appellant and defendant, and such other witnesses as it may summon, the board makes up its decision.

The test of the value of any such plan as this must lie in the answer to the question, "How does it work?" No matter how correct it may be in its theoretical provisions, it can be of little value unless the attitude of the firm and the employes is one of approval. This arbitration system has been in operation for fifteen years. At first the more extreme radicals of the employes were elected to the board. Since this necessarily resulted, at times, in decisions that were not only unfair to the firm, but also unfair to the employes, the tendency has developed among the employe-voters to elect more judicially minded employes to membership on the board. The practice of electing such persons and reëlecting them after they have been discovered has led to an attitude on the part of the board which is fair to the firm as well as to the individual employe. Accordingly, about 55 per cent of the decisions favor the employe, and 45 per cent favor the employer. One of the executives of the employment department reports that "in 99 per cent of the cases in which the decision is against us, we are wrong."

The importance of the work of the board, however, lies less in the decisions that are made than in the decisions and disputes which are avoided. The executive who dismisses an employe, for example, knows that his act must satisfy the sense of fairness of a group representing the *employes alone*. Accordingly, he refrains from taking an action which he knows will be reversed. Largely for this reason, only a few cases come before the board,—only two in the four-months' period from June to September, 1916.

The effect of this situation is to make the executive think carefully and try to settle difficulties "out of court." Rather than go before the board and have a poor case disclosed, he will perhaps have a conference with the employment department, the store manager, the employe and the latter's representative who is often the Executive Secretary of the Employes' Association. If it develops in this conference that the employe is probably in the right or that there is some justice on both sides which permits of fair compromise with good results, the case is quite likely to be settled then and there to the satisfaction of both sides, and an arbitration case avoided. This can only be done, however, if both sides do get satisfaction in this manner. This pressure tends to create coöperation in this way instead of working against it and for friction.

Although the contrary might be assumed, this practice of subjecting the decisions of a departmental executive to a higher review involves, in practice, no undermining of the authority of that executive over his people. In a recent meeting of the executives of the store, a question was raised asking which executives had had employes reinstated over their heads by the board. Nearly all of them had had this experience; but, until the cases were brought to their attention none of them *recalled* the experience, so harmoniously had the reinstated employe been assimilated into the organization.

The definite attitude of the employes is necessarily somewhat more difficult to obtain. It is the universal attitude of the employes that the board is a court of last resort, to be used only in case there is real justice in a claim. Very few of them want to come before the board, unless they have a real grievance and most employes will not appeal for arbitration, frequently preferring to keep their grievance to themselves. Consequently, petty claims are not brought up and an employe generally has a really just claim of some sort before he will air it before the board. In the minds of the employes, however, there exists always this potential court of appeal, whose machinery is sufficiently simple to make it practicably available.

Surely, here is a step in industrial democracy which is worthy of more extensive attention and investigation.

THE METHODS OF MAKING LOCAL AGREEMENTS EMPLOYED BY THE PATTERN MAKER'S ASSOCIATION OF CHICAGO[1]

By F. S. Deibler,

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The methods of bargaining employed by the Pattern Makers' Association of Chicago are in many respects unique in the field of trade union experience. It is customary to look upon a trade union as an association that exists for the purpose of securing an agreement with employers through collective action. The terms of such agreements are ordinarily reduced to a written contract which govern the conditions of service, in respect to hours, wages, etc., for a specified period of time.

While the Pattern Makers' Association has a scale, all contracts are made with individual employers and the agreements are always verbal. The officials of the Chicago association claim that they have had but one strike in fourteen years and that this dispute was in reality a lockout rather than a strike. The strength of this organization lies in three things:

1. Pattern making is highly skilled work.

2. The small number of men ordinarily employed in a shop. Four or five men is the usual number found in a shop, although some shops in the city employ as many as sixteen or eighteen men.[2] The smaller number of men usually involved in a grievance renders the financial strain of maintaining these men till the dispute is adjusted less severe than for most unions. The largest jobbing shop in Chicago is one that the union itself assisted in establishing. The importance of this shop to the successful operation of the methods employed by this union will be described later.

3. Because the pattern makers are a small, compact group of skilled workmen, organization can be made more easily effective. The officers of the union estimate that there are about five hundred

[1] The information presented in this article was collected in connection with certain investigations made by the author for the United States Commission on Industrial Relations.

[2] According to a statement by the local officers, the Allis-Chalmers' plant at Milwaukee employs about 200 pattern makers, which probably makes this the largest pattern-making plant in the country.

pattern makers in the city of Chicago, and that 95 per cent of these are members of the union. On account of these conditions, and by means of apprenticeship and other rules, the union is able to maintain a more complete control over the supply of labor and the conditions of employment than is possible by many larger organizations.

In negotiating with employers, the local association exercises a large degree of freedom. The laws of the pattern makers' league, the national union in this industry, do set some limits on the action of local associations affiliated with the national union, but these rules do not place a very strict limitation on local activity. The most important rules of the league, are those governing apprenticeship,[3] those prohibiting members from working on piece, premium, bonus, or contract work,[4] and a declaration in opposition to strikes, and favorable to arbitration and conciliation as the best methods of adjusting grievances.[5] The rule governing the procedure in the case of a grievance is as follows: the local association must, at a specially called meeting, decide by a two-thirds vote of the members present, to lay their case before the employers involved. The association must then notify the general president, who, either personally, or some representative of the league delegated by him, proceeds to the scene of the controversy and endeavors in conjunction with the local executive committee, to effect a settlement. Failing in this, a local may resort to a strike.[6] This rule of the league is of slight consequence as a means of restricting independent local action. The only advantage that would accrue to the local by complying with the rule would be the strike benefits that the members would receive from the funds of the national body. As the number of members involved in any one dispute is so small, this rule can have little effect on the determination of local policy, even in times of a dispute. The local could carry the financial burden of a dispute, in case it saw fit to do so. However, as stated above, it is contrary to the policy of the Chicago association to engage in strikes. The league has another rule prohibiting overtime, "except in cases of absolute necessity,"[7] which means prac-

[3] Const. Pattern Makers' League (1913), p. 19.
[4] *Ibid.* p. 22.
[5] *Ibid.* p. 7.
[6] *Ibid.* p. 17.
[7] *Ibid.* p. 22.

tically nothing. There are no restrictions on local action in respect to wages and hours.

The wage scale of the Chicago Pattern Makers' Association varies for different kinds of shops. Two principal kinds of shops employ pattern makers. First, the general manufacturing plant that maintains its own pattern shop. Some of these shops in Chicago may employ only two or three men, while others may have as many as fourteen to sixteen men. Second, the jobbing houses. Many manufacturing plants find it more economical to let contracts for their patterns, rather than to attempt to run a shop of their own. The wage scale in the general manufacturing plants is fifty cents per hour. In some of the jobbing shops the scale is as high as sixty cents per hour.[8]

Lack of uniformity is found likewise in regard to the hours of work. Some plants work as few as eight hours per day, while others work eight and one-half and some as many as nine hours per day. The officers of the union stated that the pattern making department of the Illinois Steel plant works ten hours per day, but that this is a non-union shop and the conditions here are unusual.

The Chicago Pattern Makers' Association has a peculiar method of controlling the wage scale and conditions of employment. For many years when new demands were made, the men were told by the employers that the business could not stand the added expense. The union officers had no positive evidence as to the accuracy of this statement. At the present time, however, the officials of the union can know with reasonable accuracy what the cost of a pattern-making department should be to the employer. This information is obtained through the experience that the union has gained from its relations with the American Pattern and Model Company.

This company is incorporated under the laws of Illinois, and has been in operation now for a period of six years. The stockholders are all members of the Chicago Pattern Makers' Association. The company was formed by a subscription of shares on the following terms: the shares were issued in denominations of $50. Any member of the Pattern Makers' Association desiring to take out a share of stock in the company could do so by the payment of $5 down, and $1 per week until the face value of the share had been paid in. In

[8] This scale does not include the wages paid in the American Pattern and Model Company's shop, which is owned by members of the union.

this way the plant became a coöperative undertaking, owned and managed by members of the Pattern Makers' Association. This company is in direct competition with all other pattern-making establishments in Chicago. In fact, it is claimed that this is the largest jobbing plant in the city, as it employs between thirty and forty men. The shop is run with strictly union labor, which is paid the best wages, and is given the shortest hours possible. The latest safety devices are used, and the general conditions of employment are as satisfactory as they can be made. The wage scale in this shop is 62½ and 65 cents per hour, according to the grade of work, for an eight-hour day, with a half holiday on Saturdays. It is claimed that both wages and hours are more favorable than in any other shop in the city.[9]

While this shop is a private corporation, the peculiar relation of the union to its management gives the union a decided advantage in its bargaining with employers in other shops throughout the city. These advantages may be summarized as follows:

1. Reasonably accurate information concerning manufacturing can be obtained. Should an employer state that he could not afford to meet the demands of the men, the officers of the union would be in a position to know whether or not the employer was making a correct statement.

2. Should the employer refuse to accede to the demands, the men could be put to work in the shop of the American Pattern and Model Company. From the nature of this trade, it frequently happens that these same journeymen can go to the firm for whom they have been working, and secure a contract for the pattern work of this plant. The firm has known the work of this journeyman, and, if the firm was satisfied, very often the work will follow the journeyman. In this way, the journeymen may, in case of a dispute, actually increase the work of the American Pattern and Model Company. While it is true that the space controlled by this firm is limited, the officials of the union point to the possibility, although it has never been done, of renting additional space and of putting the men to work, if conditions in the industry warranted it. Even if the men were not put to work, they could be put on strike benefits. Whichever way the matter is handled, the effect on the employer is the same, for since the union has so large control over the skilled

[9] The American Pattern and Model Company has constructed a new building at a cost of $20,000. This new building has greatly increased the space and efficiency of its work. No dividends have been declared to date, as all of the earnings have been put back into the plant and equipment.

pattern makers, the employer is practically forced to get any additional workmen through the union. New men will not be furnished except at the rates demanded. This explains why it is not necessary for the pattern makers to strike.

The foregoing method can be used even though there is no dispute. Whenever the union decides that any particular shop is paying less, or working longer hours, than it should, the men may be withdrawn and put to work in their own shop. When the employer calls for more men, he is informed that the conditions as to wages or hours in his shop are not satisfactory. He is told that if he expects to hold his men, it will be necessary to pay a little more or to give his men better conditions. In this way, the union has used its relations with the American Pattern and Model Company to improve working conditions for its members.

The relation of the union to this company gives the union a line upon another problem in the industry. For a long time, one of the principal menaces to standard conditions was the small pattern maker, who would underbid the union scale in order to get a job. Having secured the contract he would work long hours, and, if he required help on the job, he would pay the lowest rates. More because of the hours worked than the wages paid, this small pattern maker was a disturbing factor to the industry. Two things are accomplished through the American Pattern and Model Company which are very useful to the union in its attempts to deal with this problem. Some of these small jobbers are members of the union. Frequently this fact is found out through the company, in this way. The company has submitted a bid on a job and fails to secure it. Being an interested party the officials of the company make inquiries as to who obtained the work. Thus, members of the Pattern Makers' Association, who are inclined to break down union standards, may be detected, and thereafter disciplined. In the second place, the jobbers may undertake to cut prices for jobbing work, with the view of underbidding the American Pattern and Model Company and thus driving the company out of business. However, the company has the advantage in competition of this character, because it does not have to earn a profit. The stockholders are more interested in continuous employment than in the dividends declared on their shares. Therefore, this company can afford to take work at cost of production and continue to operate

indefinitely on that basis. Besides, the small jobber cannot handle the larger orders, because he is not equipped either as to space, or tools, for handling the larger work, therefore, this kind of competition is restricted to the smaller jobs. The power of the union through its connections with this company, whether considered in its relation to the small jobbing competitor, or to the employer unwilling to pay the scale, is in a large measure a potential force. How extensively it is used depends upon the urgency of the case.

In this unique way, a small compact group of skilled workmen have organized and carry on regular trade union functions. Agreements with the employer, while conforming to the normal representative methods through union officials, are more completely individualized than is usual in collective trade union action. The agreement is always verbal, and because of the character of the work, it is frequently in respect to a particular man. It may happen that only a very few men are capable of making the kind of pattern specified. But whether this be the case or not, the officer of the union is called upon to furnish a specified number of men who are capable of doing a definite kind of work. Through its connections with the American Pattern and Model Company the union holds a strategic advantage in its endeavors to protect and improve working conditions, that is possessed by few, if any, other unions in the country. No attempt is here made to argue that the experience of this union can be extended successfully to other organizations. The information is presented to show what different methods may be employed by trade unions as aids in collective bargaining.

SHALL FREE COLLECTIVE BARGAINING BE MAINTAINED?

By Carl H. Mote,
Indianapolis, Indiana.

During the years I was enrolled as a student in college I was a member of an intercollegiate debate team which had the affirmative of the proposition, "The power of the federal government should be extended over corporations engaged in interstate commerce." It was not until long after the debate was held and my team had been beaten that I came to realize we had overlooked our very strongest argument, namely: That the power of Congress *had already been* extended over corporations engaged in interstate commerce and that the act creating the Interstate Commerce Commission by which this was definitely accomplished was a matter of political and social necessity—an evolution of our industrial society. I am not going to overlook a similar opportunity to call attention at the outset of this paper to the spread of collective bargaining during the past fifty years and to cite this unbroken growth of its popularity as a very plausible consequence of its inherent merit—as a tangible reason why collective bargaining ought to be maintained.

As a parallel of the case I have in hand, knowing that people must eat, I might as well be charged with the task of contending for the maintenance of bake-shops, or, knowing they are possessed with religious and educational instincts, of contending for the maintenance of churches and schools. Collective bargaining is based upon the group instincts of man but in this age it is also a normal product of our industrial society which, itself, tends to promote group or class consciousness.

Free collective bargaining means undoubtedly that the differences between capital and labor, employer and employe, shall be solved, if solved at all, by those agencies which capital and labor, employer and employe, working together and alone, are able to provide. In a practical sense, *free* collective bargaining implies the use of the *trade agreement* and an unbroken and unending effort

at organization until there is a complete federation of all workers joined together for a common purpose. We may well doubt whether complete amalgamation of the workers is attainable and it is best perhaps to consider collective bargaining in terms of present or proximate limitations. We have to ask ourselves whether the success of collective bargaining as applied approximately to 15 per cent of the workers has fully justified itself.

As a matter of fact, *free* collective bargaining is not now being maintained to any appreciable extent. Collective bargaining cannot be said to be wholly *free* where state conciliation and arbitration boards are accessible to parties when collective bargaining has failed, or are likely to intervene on their own motion when differences have reached the acute state. It cannot be said, in the circumstances, that collective bargaining is *free* when hours of labor, working conditions and even wages are fixed by law. What we mean rather is collective bargaining, free from unreasonable legal restraints and reasonably free from the operation of other devices in the same field.

We have hours-of-service laws in most of the states, federal hours-of-service acts, a great body of laws, federal and state, governing working conditions, and finally minimum wage laws in seventeen or eighteen states applying to women and minors. This mass of legislation may be regarded as supplementary to the achievements of collective bargaining or as evidence of a distinct and separate movement in the direction of greater state interference with labor and industry. We may regard the tendency to fix wages, hours and conditions of service by law as a supplemental phase of collective bargaining or as an alternative. In the measurement of any scheme we have to consider its operation from a threefold point of view, namely: the elevation of labor, the orderly development of industry and the peace of society. It is so with collective bargaining.

Turning to the realm of mere theories that fail to work, we have one setting forth an ideal condition in which capital and labor would coöperate for their mutual benefit. This theory appears feasible enough until we remember that capital's wonted policy is to pay out in wages precisely what is demanded to maintain production at a given rate, and no more; or that labor's wonted policy is to collect the greatest wage obtainable for a given service. It is because of the conflict that arises at this point of difference

that employes organize to do collectively what experience has proved they cannot do individually. It is because of this point of difference that collective bargaining has become an established fact in many industries.

In the realm of mere theories, we have another which takes into the assumed partnership between capital and labor, a third which, it is maintained, is most potent of all—the public. "It is therefore necessary," says one writer, "for employers to join with employers, for employes to join with employes, and these two with the people to form a triumvirate—and then get busy and take the 'dust' out of industry."

Actually, this statement is not far from a practical solution of the problem, although the writer failing to specify just what he expects the "people" to do, one is left to speculate with regard to the exact nature of their part. The truth is that the "people," except as they have been spurred on by the proponents of trade unionism, have not accomplished anything of great moment or figured prominently as a solving factor. The "people" make a great fuss when the street cars stop running. They denounce Mother Jones or the railroads or both, when coal reaches a prohibitive price and sneer at the labor picket because he does not seem to be as busy as the "people" think they are. Otherwise, we have to offer on behalf of the "people" the famous Adamson law, passed during the last session of Congress with the avowed purpose of avoiding a strike but in the light of recent developments rather of postponing it until after a presidential election. This law, the only purpose of which seems to have been a temporary political advantage sought by the party in power, is promised a legal attack equal to the stoning of Achan.

Nevertheless, a wiser and more vigilant part in the solution of our industrial problems—in the elevation of labor, promotion of industrial progress and the establishment of peace—certainly must rest with the "people," if we are to proceed satisfactorily.

From the very nature of the service performed, collective bargaining cannot prove very satisfactory as a method of adjusting the differences between capital and labor in the field of public utilities. Here regular, prompt and adequate service is of such great importance to *all* the people that no lapse due to strikes or lockouts ought to be allowed. Of course, the employes of a

street car company, for instance, have a right to strike when the operating executives of the company decline to hear the grievances of the men from their representative committees or to submit differences that cannot be adjusted otherwise to arbitration. Likewise, the operating executives of a street car company have a right to deny the demands of their employes when the latter refuse to submit persistent differences to arbitration, as the railroad brotherhoods did prior to the enactment of the Adamson law. It is at these points especially that the "people" should exercise their inherent power—power that exists by virtue of the character of enterprise concerned. The "people" ought to intervene for their own general good and they ought to be possessed with machinery adequate to effect an adjudication.

Not that the state will ever be able to compel men to work but that in extreme cases when its awards have been made, the employes of a public utility may have the option of accepting the award or of having their places filled by other men. Undoubtedly, the state would appear to better advantage in using its police power to enforce its own award or order than it does now when the police power is invoked to protect "strike breakers" employed by a privately-owned enterprise even though the public convenience may be involved in both cases.

Fortunately, we already have the necessary machinery for the adjudication of differences between employer and employe in the field of public utilities. The federal government maintains the Interstate Commerce Commission and practically all the states maintain public service commissions. In their respective jurisdictions, these bodies already have administrative power approximating that of wage boards. They already are empowered to fix reasonable rates for service, to determine a standard of service and to supervise and authorize stock and bond issues. Wages, hours and conditions of service of the men employed in the operation of a public utility are so closely related to the element of service from the consumer's standpoint that no regulatory body can successfully control the latter without regulation of the former. Moreover, what is more logical as a corollary of the proposition that regulatory bodies in the field of public utilities empowered to supervise rates, service, and capital also should supervise wages, which enter into these other elements?

Eighteen states already maintain minimum wage boards with jurisdiction over the wages of women and minors and this further grant of power to the Interstate Commerce Commission and to the public service commissions of the states ought to be upheld under our present constitutions on practically the same grounds as minimum wage laws.

Outside the field of public utilities, it does not appear that we shall be able to find any method of adjudicating the differences between employer and employe equal to collective bargaining. Within the field of public utilities, there ought to be as little interference on the part of the state with employer and employe as we may find consistent with the proposition that no lapse of service is to be tolerated.

There can be no doubt that the fight of the trade unions of this country to establish the principle and spread the practice of collective bargaining properly deserves to rank as the most potent influence extant for shorter hours, higher wages and better working conditions. Progress in those trades where collective bargaining has become an established fact has been especially marked.

Many other influences, it is true, have functioned to the same end but the trade union movement stands out conspicuously as greatest of all. It is upon the principle of collective bargaining that the trade union movement rests in this country and we shall, therefore, have to bear in mind that the achievements of the one are achievements of the other; that the history of the one is the history of the other. We shall have to bear in mind also that the trade unions with collective bargaining as their *shibboleth* "have had to fight the lawmakers and the judges, the police power and those who usurped police power," and that "nothing has been won without a struggle."

In behalf of collective bargaining, it may be urged that three million American workmen, more or less, by virtue of their organization for that purpose, have been able to maintain a wage scale far above that of the unorganized trades; that the evils of child and woman labor have been effectively checked or eradicated; that hygienic, sanitary and safety laws have been wrung, one by one, from unwilling legislative bodies; that the standard of intelligence and of enlightened citizenship within the organized trades has risen year by year; that the membership, being trained to service in groups,

has learned the lesson of obedience, discipline and team work; and finally that the unorganized trades, the 85 per cent of American workmen, have benefited either directly or indirectly by what we may call the "tyranny of the minority." So far as the influence of collective bargaining is concerned as a factor for enlightened citizenship, for obtaining comfortable wages and sufficient leisure for recreation, it stands paramount in the field of industry.

The trade union movement may have failed to develop a sufficient number of skilled workmen for healthy industrial progress because of the collapse of the apprenticeship system, and therefore collective bargaining might be said to be responsible for having retarded our industrial development. The facts, however, are that our failure to train skilled workmen is due more to the direction of our industrial development, to the advent of machine production and of extreme specialization than anything else. Trade unionists frankly admit the failure of the apprentice system and in their active support of the movement for industrial education are doing everything possible to overcome what is being lost in the passing of apprenticeship.

Australian and New Zealand experiments—experiments carried on in an industrial society far less complex than our own—show conclusively that compulsory arbitration is merely a name; that the state in extreme crises is unable to compel men to work when otherwise disposed; that actually the device is a failure when applied to cases where it is most needed. Compulsory conciliation and arbitration "does not compel, it does not conciliate, neither does it arbitrate. Like the peddler's razor, it was made to sell and not to shave." Compulsory arbitration is opposed by organized labor and by organized and unorganized employers. In the general field of industry it will not operate because men cannot be compelled to work against their will and besides it is an instrument of doubtful merit even though it might be made effective.

Compulsory investigation, a device used in Canada since 1907, where it applies to transportation, communication, mining, gas, light, water and power enterprises, is open to practically every objection to be urged against compulsory arbitration and in theory at least lacks the advantages that would flow out of compulsory arbitration, assuming that the parties to an industrial controversy could be compelled to arbitrate their differences and to abide by the

awards of a board appointed against their will. Nine years' experience with compulsory investigation in Canada shows a high percentage of failure to avert strikes as well as numerous instances where the law was disregarded altogether in calling strikes. It is quite as objectionable to organized labor as compulsory arbitration. President Wilson's program announced in connection with his recommendation of the Adamson bill, and renewed in his recent message to Congress, which includes the enactment of a law after the plan of the Canadian Industrial Disputes Investigation Act, was scarcely published in the newspapers until Mr. Gompers attacked it. Obviously, Mr. Gompers was waiting until after the election for the main assault. The Canadian law, framed obviously on the admitted principle that men cannot be made to work when they will otherwise, does, as a matter of fact, undertake to compel them to work during a certain period, pending investigation by official authority, and to that extent is open to the same objection as compulsory arbitration.

Of course, it is legally possible to fix wages, hours and working conditions directly by law, but manifestly this is an impossible task in practice and one altogether beyond the normal functions of legislative bodies. Until the enactment of the Adamson law, it was definitely understood that organized labor and the American Federation of Labor, especially, were unalterably committed to the principle of collective bargaining and unalterably opposed to all other methods of regulating wages and hours.

The 1915 convention of the American Federation of Labor defeated a resolution of socialist origin advocating direct legislation to obtain the eight-hour day and reaffirmed a resolution adopted at the 1914 convention, of directly opposite purport. In part, this resolution was as follows:

> The American Federation of Labor, as in the past, again declares that the question of the regulation of wages and hours should be undertaken through trade union activity, and not to be made subjects of laws through legislative enactment. It cannot be overemphasized that the wage-earners must depend upon their economic organizations for securing a shorter work day. . . . . To secure a shorter work day by any other method makes it necessary for the wage-earners to delegate to other authorities other things which vitally affect them, and which constitute a limitation upon their activities and their rights, and thus finally lessen their freedom.

It is a fact that in so far as legislative bodies assume the function of limiting hours and fixing wages, collective bargaining will have to be given up and it is in the railroad train service that collective bargaining has attained the zenith of its power. The Adamson law was badly framed and in all probability present trade agreements will be abrogated or modified to suit the railroads. Worst of all, conditions attending the passage of the Adamson act have weakened the brotherhoods before the public and in the event a strike is finally called there will be a general want of sympathy with the strikers' cause. Out of all this, however, we may hope that the Interstate Commerce Commission may be charged with complete jurisdiction over wages and hours in the railroad service, a natural and inevitable disposition of the problem.

There are strong indications that the railroad brotherhoods, who would now be violently opposed to surrendering any part of the wage-bargain function, took a step in accepting the Adamson law from which there is no returning. Having already estranged a considerable number of trainmen in an effort to coerce them into blind support of the Adamson act, the brotherhood leaders will have serious difficulty now in effecting an orderly retreat.

The railroad brotherhoods are conspicuously a non-striking organization. This is their history. It is true that they have engaged in strikes, but a strike nevertheless is the exception. Notwithstanding the seriousness of the indictment and the hesitancy with which it is brought, I am persuaded that the strike vote preceding the recent surrender to political domination by Congress and the President of the United States, was a "frozen" vote, and that the brotherhoods surrendered only because they believed it would, may I say, save their own hides? It is a regrettable fact that the brotherhood leaders were willing to practice a colossal deceit on their membership. Finally, it may be said in all fairness and justice, that they deserve what they eventually will receive, the condemnation of their own membership and of the public generally for delivering over their organization to a political party as a part of a political bargain. The condition in which the brotherhoods find themselves suggests the beginning of an attempt to handle the wage question in the field of public utilities in an altogether new way. The beginning might as well be made with the railroads doing an interstate business.

As a practical proposition, outside the field of public utilities, we have nothing that can take the place of collective bargaining, and we shall therefore have to content ourselves with whatever advantages the trade agreement offers and provide ourselves against whatever disadvantages it entails. To this end we ought to legalize fully employers' and employes' associations and to recognize them as our greatest security against destructive labor struggles. We ought to encourage associations of both groups and extend to them whatever protection the law can afford. In this event, we shall have a democratic approach to the solution of our problem and therefore a reasonably satisfactory solution because the parties most interested will have had a voice in reaching the solution.

FEDERAL ARBITRATION LEGISLATION

By L. E. Hoffman,
Little Rock, Arkansas.

Under the Constitution of the United States the power to regulate interstate commerce is delegated to Congress, limiting to the several states the control and regulation of commercial intercourse wholly within their respective borders. The most general common carriers transporting commerce between the states are railroads, so legislation to prevent interruption to interstate commerce may properly be confined to them.

The first noteworthy interruption to railroad communication because of contentions between carriers and their employes occurred in the historic strike of 1877. Notwithstanding considerable injury and inconvenience resulting to participants and other citizens, Congress took no official note of the fact until the act of October 1, 1888, which authorized the selection and appointment of arbitrators upon the written proposition of either party to a controversy involving interstate carriers and their employes. This act provided that one arbitrator should be chosen by the carrier, one by employes and a third should be selected by these two arbitrators representing the parties to the controversy. This board had power to administer oaths, take testimony and investigate, mediate and arbitrate. The act also empowered the President at his discretion to select two commissioners, one at least to be a resident of the state in which the controversy arose, who, with the Commissioner of Labor, would constitute a temporary commission to examine causes of the controversy, conditions accompanying it, and the best means for adjusting it. The services of such commissioners could be tendered by the President voluntarily, requested by either participant, or even applied for by the executive of the state in which the difficulty arose.

Decisions of an arbitration board, also the findings of a commission, were to be made public, but the contesting parties might elect to abide by or disregard the decision reached, since the law placed no restraint whatever upon either party. However, no

effort was ever made to utilize its arbitration feature and but one commission was created to report upon a strike—that of 1894. In view of the restricted scope of this law it was repealed when the more comprehensive statute known as the Erdman Arbitration Act was passed June 1, 1898.

The Erdman Act applied to railroads and employes actually engaged in train operation, thereby embracing conductors, brakemen, engineers, firemen, switchmen and telegraphers. It provided that whenever a controversy seriously interrupted or threatened to interrupt interstate commerce, the chairman of the Interstate Commerce Commission and the Commissioner of Labor should, as mediators, upon request of either party, or both, use their best efforts by mediation and conciliation to settle the same amicably, but if unsuccessful, they should endeavor to have the controversy arbitrated under provisions of the act. In case of arbitration, a board of three members was to be selected as follows: one member to be named by the carrier; a second by the labor organization or committee representing the employes; and a third to be chosen by these two within five days. In case of failure to select the third arbitrator in this manner, he was to be named by the mediators. As a rule the selection of the third arbitrator proved difficult, since he had to be acceptable to both sides and in several instances when chosen was unwilling, or not in position, to serve. A copy of every agreement of arbitration after its execution by the contending parties, and being duly acknowledged before a notary public or clerk of a district or circuit court of the United States, was filed with the Interstate Commerce Commission for record.

Attempts were made, but without success, to invoke the provisions of this law in 1899 and in 1906. From 1907 to 1912 inclusive, the services of the mediators were made use of more frequently. In 1910 sixteen applications—the maximum in any one year—were made to the mediators for their friendly offices. From the passage of the law to December 31, 1911, a total of forty-eight cases were handled by the mediators, of which twelve were arbitrated. In only three of these cases were the two arbitrators able to agree upon the third, thus necessitating that the two mediators select the arbitrator.

After the arbitration board had been duly appointed, the statute required them to commence their hearings within ten days and

conclude their investigation and announce the award within thirty days from the time of appointment of the third arbitrator. Pending the arbitration, the status existing immediately prior to the dispute remained unchanged, except that no employe should be compelled to perform service without his consent. Upon completion of their work the arbitrators filed their award, with all papers, proceedings and testimony, in the clerk's office of the circuit court and their finding was conclusive upon both parties, unless temporarily suspended pending disposal of exceptions filed by either party within ten days thereafter, or unless the award was set aside for error of law by the circuit court or on appeal therefrom to the circuit court of appeals, whose decision was final. The law provided that employes displeased with the award should not quit, nor employers dismiss their employes within three months after such award was made, without giving each other thirty days' notice in writing of their intention. The award remained in effect for one year after it went into practical operation, and no new arbitration upon the same subject between the parties to the original controversy could be had within the year unless the award was set aside by a court of proper jurisdiction. The law provided no penalty in case the parties involved failed to comply with the findings of an award, but there was never an instance where either party disregarded the award of an arbitration board.

Other provisions in the act were: employes individually should not be heard by arbitrators unless the complaining employes constituted a majority of that grade and class in the service of the same employer; pending the outcome of the arbitration the employer should not discharge any employes, parties thereto, without sufficient cause, nor should an organization representing the employes order, aid or abet a strike; in every incorporation under United States statutes it must be provided in the articles of incorporation, constitution, rules and by-laws that members should be ousted in case they used force or violence during strikes, lockouts or boycotts, or sought to prevent others from working through violence, threats or intimidations; individual members should not be liable for the acts, debts or obligations of such incorporations or vice versa; and further, the act made guilty of a misdemeanor subject to stated penalties, any employer, officer or agent who required an employe to agree not to become a member of any labor organization,

or who threatened loss of employment, or discriminated against any employe because he belonged to or might become a member of a labor organization, or required an employe to contribute to any fund for charitable, social or beneficial purposes, or release his employer from legal liability for personal injury by reason of benefits received from such fund beyond the proportionate benefits resulting from the employer's contribution to such fund; or who, after having discharged an employe, attempted or conspired to prevent such employe or any employe, voluntarily quitting his position, from obtaining employment. Only one provision of the law specifically referred to employes as individuals who were not members of labor organizations; all other provisions related to organized as well as unorganized labor.

Under the law the mediators had no authority to intercede in any controversy, and could do so only upon request by one of the contending parties, provided the other agreed to accept intervention. Therefore, employes might quit or strike and carriers declare a lockout in the same manner as before the act was passed. Should one of the contestants decline to accept mediation or arbitration, there was no provision compelling him to submit.

The increased duties of the chairman of the Interstate Commerce Commission made it imperative that he be relieved of the work of mediator, and consequently, effective March 4, 1911, the President was authorized to designate from time to time any member of the Interstate Commerce Commission, or of the then Court of Commerce, to exercise the powers and duties imposed upon the chairman of the former. Accordingly, the presiding judge of the Court of Commerce, who had previously been a member and chairman of the commission, was appointed to exercise such duties.

Only three arbitrators could be chosen under the Erdman Act and as the arbitrators selected by each of the contestants would naturally favor, even though unintentionally, the party who appointed them, the third arbitrator, therefore, was to a greater extent the sole judge of the points at issue. This fact, with other exceptions, together with results in several arbitrations that were unsatisfactory to both carriers and employes, led to agitation for a revised law to overcome the objectionable features of the Erdman Act. After extended negotiations between railroad officials and conductors and trainmen of the eastern roads, with little prospect of

settlement, a conference was arranged at the White House July 14, 1913, at which railroad presidents and representatives of the railway brotherhoods were present, for the purpose of reaching an understanding as to their respective recommendations for strengthening and revising the existing law, and settling the pending differences under the revised statute.

The substance of the agreement reached was incorporated the following day into the Newlands Act, which repealed the Erdman law. While re-enacting the majority of the provisions of the Erdman law relating to mediation, the Newlands Act provides for a permanent United States Board of Mediation and Conciliation, composed of a commissioner who devotes his entire time to that office, an assistant commissioner, and two other officers of the government. The Newlands Act also provides that when controversies threaten interruption of traffic, either or both of the parties involved may request the services of the board, which is also authorized to proffer its services to the parties when the public interest will likely suffer. An arbitration board may consist of three or six arbitrators, as the contending parties elect; if three, they are chosen as they were under the Erdman Act, but when six are desired, two are selected by the carriers, two by the employes, and these four are empowered to choose the remaining two, but failing to do so within fifteen days after they first meet, the latter two, in case neither has been agreed upon, shall be named by the Board of Mediation and Conciliation.

The Newlands Act became effective July 15, 1913. From that date until May, 1916, fifty-six controversies have been adjusted by the board. Of this number forty-five were settled by mediation, and eleven by mediation and arbitration. In twenty cases employes made application to the board for its services, in thirteen cases, the railroads and in fifteen the railroads and employes made joint application. In eight instances, the board proffered its services, which were accepted.

With a permanent Board of Mediation and Conciliation, and with three or six arbitrators now optional, instead of only three as formerly, better results can be expected since the larger number is usually chosen, and the reasoning and conclusions of six persons are preferable to that of three. However, even with the advantages of the present law, the board has no power to require the parties to

a controversy to accept its services or postpone a strike or lockout until the differences may be properly investigated and the facts furnished the public. A striking example of this fact is the congressional action of September 2, 1916, passed as a last resort to avert an impending strike of far-reaching magnitude. Excluding the temporary restraint contained in this legislation either the railroads or their employes may, at any future time when they decide that their best interests would warrant and their resources are sufficient, declare a general strike or lockout, and resort to a test of strength, thus ignoring public opinion, the greatest arbiter of justice the world has yet known and inflict untold injury and suffering upon the greater majority of our citizens who would only be indirectly parties to such a controversy.

WHY I BELIEVE THE INTERSTATE COMMERCE COMMISSION SHOULD HAVE POWER TO FIX WAGES AND HOURS OF LABOR ON INTERSTATE CARRIERS

By O. W. Underwood,

United States Senator.

You have asked me why I believe the Interstate Commerce Commission should have the power to fix wages and the hours of labor on interstate carriers.

I might answer you that the rights of society and the progress of civilization demand it. It would be a captious answer and yet it would tell the truth.

Since the dawn of civilization the laws have been written to protect the rights of property. Courts have been established to interpret the law and determine what man's rights were under the law. No one questions that a dispute about property should be finally settled in the courts. Should either side to such a controversy resort to force instead of the law the strong arm of the government would intervene and punishment would swiftly come to the party at fault.

Centuries have piled on centuries without the law's recognizing the right of labor in the aggregate to have a court determine what was a fair and reasonable wage, with the resultant effect that when labor was dissatisfied with the wage paid, its only recourse was to quit work. When there were few men employed and there was opportunity for other employment, this was not a serious hardship to the employer or to labor itself, nor did it endanger the peace, happiness and prosperity of the public at large. But when hundreds of thousands of men are enaged for work under the same terms and the same conditions, and are paid the same wage, then it is practically impossible for one of the men employed in such a service to secure a raise of wages, on his individual merits, as long as he remains in the service because the individual equation is lost in the necessity for uniform hours of service and rates of wage, and if he is not satisfied with the terms of his employment he can only separate himself from his occupation.

On the other hand, if the men engaged in certain occupations are united in a society or labor union for the improvement of their condition and the increase of their wages and they make demands on their employer that he is not willing to accept, the only recourse that they have, unless there is a mutual agreement to arbitrate the questions in dispute, is to declare a general strike, with all the resultant injury both to themselves and their employer: loss of wages and distressed conditions in the home on one side, and loss of business and the destruction of property on the other. And arbitration is merely the establishment of a court, not by law but by the parties to the controversy, to pass on the points at issue. Strike conditions are always wasteful of time and money, dangerous and disorganizing to human society even where they are localized in area and resultant effects. But when the controversy goes far afield and involves not only the man who earns his bread by his daily toil and the man who has his money invested in the property that is giving employment to labor, but also, as was threatened recently, when the public is more seriously affected by a war between labor and capital than is either labor or capital, then the time has come when neither of the primary parties to the controversy has interests involved that should be considered in preference to that of the public, which has a right to demand that in the settlement of all such controversies the public interests shall be fairly and justly considered. In controversies involving the hours of labor and the rate of wages on the great railroad companies of America, no one can deny the importance of the questions involved to the men who do the work. Nor can it be denied, since at least 43 per cent of the cost of operating and maintaining the transportation companies of the United States is labor cost, that the invested capital in these companies has great interests at stake in determining what is a fair and reasonable wage for its employes; especially when the employer has no power under the law to fix the price of the product of his industry, the law itself fixing the price for which transportation of passengers and freight must be sold.

To state the equation differently, the law, acting through the Interstate Commerce Commission of the United States, fixes the rates of transportation for freight and passenger service and limits the earning capacity of the railroad companies. It is, therefore, apparent that if the expenses of the railroad companies are greatly

increased, either by reason of increased interest on their bonded indebtedness, increases in taxes, increases in the cost of supplies, or increases in the rate of wages, a profitable business may be changed to an unprofitable one, success into bankruptcy; unless the Interstate Commerce Commission grants the transportation companies the right to increase their rates of transportation so as to meet as fully as may be necessary the increased cost of operation. If this is done, of necessity the increased cost falls on the public; the shipper and the traveler must bear the burden. When a controversy that involves the increased cost of transportation arises between employers and employes, surely the rights of the public are at stake as much as the rights of the principals to the controversy. Should these differences be settled as has been the case in the past without the opportunity for intervention on the part of the shipper and traveler, manifestly their rights have not been protected but have been ignored entirely.

For the interests of the immediate parties to the controversy and all of the rights for which they contend are not commensurate with those of the general public. You may say that the rates of wages on the inland transportation companies of the United States amount to more than the annual expenditures of the federal government. You may say that the capital invested in the railways of the United States amounts to more than fourteen billions of dollars. You may say that the daily wage paid to 1,800,000 railroad employes affects the lives of 8,000,000 people. On the other hand, you may say that the fourteen billions of dollars representing the capital of the railroads of the United States is not owned by a few millionaires, but is in the hands of the savings banks, the trust companies and the insurance companies of America; that the investment bank takes care of the savings of the frugal public; that the reserve funds of the insurance companies guarantee the policies that protect the homes of millions of the good citizens of the republic; that the trust company manages the estate of the widow and orphan. However, both sides of this controversy must pale into insignificance when you recall that the productive capacity of the industrial workmen of America amounts to more than thirty billions of dollars each year and that this productive capacity is of no value until it reaches the market of the ultimate consumer; markets which must be reached by transportation at least a part of the way over the railroad lines

of America. To stop transportation for an hour must of necessity paralyze industry for the same hour; to stop transportation for a week would not only stop industry for a week, but would throw out of employment millions of men who are dependent upon industry for their daily wage. To stop transportation for a month in the United States would not only destroy industry and deprive labor of employment, but would produce a scarcity of the necessities of life that would cause actual suffering to the hundred millions of people in continental United States. Therefore it would be idle to contend for a moment that either the labor or the capital employed in inland transportation has an interest in the matter of the stoppage for any cause of the movement of railroad trains that is at all comparable with the interest of the whole people of the United States.

And yet it is claimed by some in this twentieth century since the birth of Christ, in this day when both labor and capital encroach upon the rights of free men, that the only parties who are entitled to be heard in a controversy as to whether wages shall be increased or the hours of labor lessened are the men who work on the railroads and the men who represent the capital invested in the railroads; that for others to intervene is to interfere with the privileges of the contending parties; that, like two battle chieftains of old, these two parties alone are entitled to divide the spoils of war. In this era of advanced civilization, must we admit that, if the contending forces of labor and capital cannot agree as to the matter in dispute, they are entitled to resort to the wage of battle and fight out their controversy by blocking the channels of trade, by stopping the natural flow of the nation's commerce, by paralyzing the industry of the people of the United States and by bringing distress and starvation to the homes of the innocent people of America?

This has been the view point of the past, but as sure as man was born of woman, a new birth has come to the thought and the life of the people of the United States. A reactionary labor leader, or a predatory capitalist, may contend for such positions in the future, but the enlightened thought of clean Americans will wash their hands of the brutality of such transportation controversies for the future, and demand of the government of the United States, in no uncertain tones, that the same government, which protects us from a foreign foe, which was established "to form a more perfect

union, establish justice, insure domestic tranquility, provide for the common defence, promote the general wellfare and secure the blessings of liberty to ourselves and our posterity," shall maintain a permanent court in this land where the controversies of all men relating to the commerce among the several states, or to the instrumentalities of such commerce, may be heard, and where the rights of all the people of the United States may be fairly and justly protected. This of necessity is the step forward, and this is the step that must be taken. To say that an organization of 400,000 men can stand in the way of the happiness and prosperity of 100,000,000 people is a proposition that cannot be contended for and maintained in any public forum or sustained in the hearts of the people of the United States.

Then how can the proposition be solved fairly to all concerned? We are not prepared without investigation and consideration to say that labor employed by the railroad transportation companies of America is receiving its full and fair return. We know that there are some employes on the railroad that are receiving low wages, and probably an inadequate pay for the service rendered; we know that their wage has not been increased proportionately with the increased cost of living. On the other hand we know that some of the employes of the transportation companies are receiving a wage that not only supplies their wants, but enables them to live in comfort and even in luxury with few hours of work. As to whether the recent controversy of the men, demanding ten hours' pay for eight hours' service was just or unjust is not a problem that the public or the Congress of the United States is equipped to decide. There can be but one way out, and that is to appoint a tribunal with the power to adjust these matters, which has the time to consider and the opportunity to know the facts. Such a tribunal must not only have the power and be prepared to do what is right and just by the labor employed on the railroad, but must have authority and power to see that invested property is not confiscated by its decisions. For, should you confiscate the property of the transportation companies of the United States, you break down transportation in the same way that you would break it down with a strike, with resultant injury to the public at large.

A tribunal of this kind must also have the authority and opportunity to consider the rights of the shippers and travelers of

America who in the last analysis must bear any increased burden that may fall on the carriage of property or persons over the transportation lines. This tribunal must have the authority and power to protect the rights of the whole people of the United States against the recurrence of lockouts and strikes. What body then is most capable of determining all these questions and fairly adjusting them to the interests of all parties concerned? A Board of Arbitration to be appointed by the employers and employes of the railroad companies of the United States will only look to the matters in dispute between the contending parties, and will not have in mind the ultimate rights of the public. The general courts of the land are not equipped either with the knowledge or the power to obtain information in reference to the cardinal facts that must decide the controversy. If you want a final and fair adjustment of such a controversy, you are practically driven to leaving the decision to a commission that has full and ample opportunity to investigate the rates of wage, the earning power of the transportation companies, the burden that rests on the shipping public, and, after a fair and full investigation to determine; first, what is a fair and living wage for the men, and to how great an extent a fair and living wage may be increased to enable the toilers to secure the higher ideals of life and living; second, how far this charge can be placed on the capital of the corporation without breaking it down, destroying the value of its securities, bankrupting its property, and taking away from the investing public a fair return for capital invested; third, how far an increased charge for labor, interest, or supplies can be handed down to the public without doing injustice to the shipper and traveler, and without becoming a menace to the development of the industry of the country. All of these questions must be determined by a court or by an independent commission, but their findings, except in so far as they may determine the rate of wage that must be paid by the railroad companies, and the rate of wage that must be received by the men if they continue their employment, will be academic because they will have no power to operate on the side of the problem in which the general public is interested. The power to determine what are just and reasonable rates for the transportation of persons and property over the interstate railroads of this country is fixed by law in the Interstate Commerce Commission of the United States. This commission alone can determine whether

the rates shall be increased and whether a charge made against the railroad company shall remain a charge on its capital or whether, in justice and fair dealing, it shall be handed on to the shipping and traveling public.

It is, therefore, clear to me that the same power that has the right to fix the rates of transportation should have the power to fix the rates of wage and the hours of labor on the great transportation companies of the United States, and that this power and this duty should be given irrevocably to the Interstate Commerce Commission in order that it may do justice between employer and employe. The granting to the Interstate Commerce Commission of the power to determine the hours of labor and the rate of wage will solve the problem for the future. Men cannot strike against the decrees of the government. After a fair determination of the controversy by an impartial tribunal, public sentiment would force the contending parties to accept the verdict rendered as final. It must be so in the interest of the happiness of the men involved, the prosperity of the people and the peace of the nation.

Until recently the court of arbitration has occupied the same position in labor disputes that the white flag holds in international law. Both have been the pledge of a higher civilization and their abandonment portends ill to our future progress along lines that lead to the high ideals. The settlement of disputes by arbitration should not be abandoned. It is a step in the direction of law and order, but it is only the half way house to the final solution of the matter we have under consideration. Arbitration cannot solve the greater question of the public rights, and it calls for a controversy before it can be adopted as a settlement of the pending issue. Labor has heretofore appealed to the Congress to fix the hours of labor and the rate of wage in gainful occupations. The Supreme Court of the United States has held that the Congress may by law regulate the instrumentalities of interstate commerce, and there can be no question as to the constitutional right of the legislative power to do so. Let us hope that the Congress will do its full duty and remove this question from the field of uncertainty by giving ample authority to the Interstate Commerce Commission to decide these questions.

The Congress has recently passed a law temporarily granting ten hours' present pay for eight hours' work in the future, with

standard pay for all overtime to the men engaged in the movement of trains; it is said that this increase in wage amounts to 25 per cent of the amount formerly paid and will go to about one-fourth of the men employed by the railroad companies. The combined pay roll of the railroads in the United States amounts to $1,005,277,249. If the Congress should grant a like increase to all the men employed by the railroads it would amount to something like a quarter of a billion dollars. Such an amount of necessity must be paid by the public or certain if not most of the railroads would go into the bankruptcy court. The railroad men involved have heretofore received fair wages, the average daily wage in the United States having been for engineers, $5.40; conductors, $4.60; firemen, $3.25; and other trainmen, $3.15. Under these conditions it is only just and fair that the public, which in the end must pay the bill, should be represented in the court of final arbitration. And where else can the public have its day in court if the rate of wage and the hours of pay are not determined by the Interstate Commerce Commission?

SHALL THE INTERSTATE COMMERCE COMMISSION AND THE STATE PUBLIC UTILITY COMMISSIONS FIX WAGES ON THE RAILROADS AND ON LOCAL PUBLIC UTILITIES?

By Delos F. Wilcox,
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It would be hard to over-estimate the theoretical importance of the suggestion that the wages to be paid by railroads and public service corporations shall be fixed by public authority. A number of fundamental questions of political and social economy are involved. Back of the proposition lies the assumption that a railroad or a public utility is essentially a monopoly and therefore has been taken out of the category of undertakings whose operations in so far as they affect the public can be regulated by free competition. The proposition assumes as an established fact the existence of public regulation of the rates and service of railroads and public utilities and also assumes that such regulation is theoretically appropriate. But the proposition goes much further. It assumes the theoretical correctness of Ricardo's "iron law of wages" and the practical necessity of collective bargaining in competitive industries in order to enable the workmen to escape from the unlimited competition of labor postulated by Ricardo, and thereby to secure for themselves a standard of living high enough to make them fit for citizenship in a democracy. The proposition makes still another assumption, namely, that the public interest in the continuity, safety and efficiency of railroad and public utility service is paramount to the interests both of the owners and of the employes. In fact, it is the preëxistence of these assumptions that creates the problem for the solution of which the public regulation of wages is proposed. Therefore, in the discussion of this proposition we must first examine the several assumptions upon which it is based to see whether or not they should stand as they are, be subjected to certain modifications or be rejected entirely.

First, as to the assumption of monopoly. President Wilson has been severely criticized for saying that the eight-hour day has

received the general sanction of society. Perhaps the statement that the monopoly character of railroads and public utilities has been generally recognized by society would be subjected to the same kind of criticism; for if we examine carefully the constitutional, statutory and franchise provisions under which railroads and public utilities are operating in the various parts of the United States, we shall probably still find a great preponderance of provisions intended to preserve competition and prevent monopoly over the provisions which may fairly be said to contain a recognition of monopoly as the natural and appropriate status of these enterprises. Indeed, the rejection of general eight-hour laws by the electors of certain western commonwealths could be paralleled by the adoption of competing public utility franchises by popular vote, and by the recorded opposition of the people and their representatives to the establishment of monopoly in railroad service. Therefore, while it may be truthfully said, I believe, that the preponderant opinion of those who, through actual operation of these enterprises, through scientific study of them or through responsibility for the intelligent protection of the public interest in connection with them, have been in a position to form a sound judgment on the issues involved, is in favor of monopoly as against competition, it cannot be said with any degree of assurance that if a popular vote were taken on the question, the majority would concur in this opinion. Nevertheless, the theory of continuous public regulation through the agency of federal, state or local commissions, is logically based upon a recognition of monopoly as an existent fact. A distinction should be made, however, between the recognition of monopoly as a fact and the recognition of its existence as a normal and appropriate condition. It is only in those relatively few instances where exclusive franchises have been granted, that the appropriateness of monopoly has been fully recognized. Even the provisions now quite common in railroad and public service laws, to the effect that new competition in the same utility shall not be instituted in any given community except with the definite sanction of the state through a certificate of public convenience and necessity, do not constitute a final recognition of the appropriateness of monopoly. The certificate of public convenience and necessity is, as it were, a second string to the state's bow in the exercise of its powers of regulation. This view was set forth with great clearness and cogency by the

California Railroad Commission in the *Great Western Power Company Case* in 1912. It is true that most of the state commissions have been less ready than the California commission to use their power to permit competition even as a potential weapon to enforce the just demands of the public, but nevertheless the right to do so is nowhere denied them.

It would be idle to attempt to deny the fact that the monopoly of railroad service in the United States is far from complete and that the elements of competition still persisting give rise to very considerable difficulties in the application of the theory of public regulation. I may cite the decision in *The Minnesota Rate Cases* (230 U. S., 352), where the court sustained statutes and commission orders with reference to certain strong and favorably situated railroads while setting them aside as to a weaker road operating within the same local jurisdiction. It is another "well recognized principle of social economy" that in the development of a public utility or railroad system to serve a given community, the cost of the service ought to be spread over the entire system and the extensions through lean territory ought within reasonable limits to be carried by the portion of the system which has actually developed earning power through density of business. Yet obviously this policy cannot be carried out where there is diverse ownership of the lean and the fat; for if rates to the lean are raised to a living basis, the increase will do them no good unless the fat are also permitted to charge the same rate, in which case they are certain to become overcorpulent. If, on the other hand, the rates to the fat are reduced to the level of a hygienic regimen, the lean, being in competition with them, will starve. In these cases the United States Supreme Court found itself confronted with a situation where monopoly in the larger sense was non-existent and where, therefore, it was deemed improper to establish a fixed schedule of rates applicable to all the different railroads serving the same general community.

I may cite as another illustration the water supply in one of the outlying districts of Greater New York. This is a case where the city of New York, through its municipal system, serves about three-quarters of the territory and more than nine-tenths of the population within its corporate limits. In the particular section referred to, however, there are two private water companies having coterminous franchise and charter obligations. One has for many years supplied

the general service at rates higher than the rates charged in surrounding districts by the city. The other a few years ago revived an old franchise, established a modern pumping station and started in to compete with its older rival, not by rendering a general service throughout its franchise area at lower rates, which it probably would not have been able to do, but merely by trying to pick off the large industrial consumers in the particular corner of the district where its plant was located by charging a rate even lower than the city rate. The older company, in order to hold at least a portion of its industrial business in that portion of its district, was compelled to make a differential rate to meet the unfair competition instituted by the new company. Several years later the question of regulating the older company's rates came before the proper authorities for determination. This company, charging generally higher rates than the city rates, served a population of about one hundred and fifty thousand people, while its little rival had only nine consumers, one of whom, however, took about one-fifth as much water as all the consumers of the larger company. The authorities were confronted with the fact that in order to reduce the rates generally throughout the district and at the same time to establish a uniform living rate for the company rendering general service, it would be necessary to make a rate higher than the rate charged by the small company with a few consumers and that if such a rate was established for the large company unless it was made to apply to the small one, regulation would be ineffectual, as it would practically compel the larger company, after having its rates reduced and adjusted to the requirements of a fair return upon its investment, to see its most profitable business taken away by its unfair rival and the equilibrium between investment and earnings sought to be established by regulation thereby destroyed while the unfair rival would be directly rewarded for its unfairness. It was evident that the only effective method of regulating rates for one company was to regulate them and make them uniform for both, but this might involve a contradiction of the theory that each public service corporation should be permitted to earn a fair return upon its investment in the public service; for a uniform rate could not be worked out for two companies, operating with very different investments and operating under very different conditions, that would, except by chance, yield each of them a fair return and no more upon its own investment. It seemed theoretic-

ally necessary, therefore, in this case, to fix rates on the basis of the investment and earnings of the company which was rendering general service and to compel the other company to charge the same rate irrespective of whether this rate would enable it to earn more than a fair return upon its own investment or compel it to get along with less. The many practical and theoretical difficulties of carrying regulation through according to this program raised the question as to whether it might not be more advisable for the city to acquire the property and business of the larger company, so that just and reasonable rates and service could be brought within the reach of the people of this community, rather than to embark upon the difficult and uncertain litigation which would probably ensue upon the issuance of a rate order along the lines contemplated.

I have cited these two illustrations to show that even for the purpose of the regulation of rates and services, a complete monopoly in railroads and utilities does not everywhere exist. When it comes to the regulation of wages, the absence of a perfect monopoly gives rise to certain grave difficulties. If wages are to be regulated by public authority, they will have to conform to some standard of uniformity. For the same class of service within the same district, the same wages will have to be paid to all employes, subject to possible variations on account of length of service. If all the railroads within a given district of the United States were actually operated as a monopoly, then it would be possible to apply a uniform wage schedule, using the older and more experienced men on the lines where traffic is most congested and responsibility of employes greatest and where their energies during the hours of employment are utilized to the highest degree. But where competitive conditions exist, it may be entirely inappropriate that the scale of wages paid on the poorer road, where employment is less intense and responsibility both for life and property less exacting, should be the same as on the road where traffic is denser and responsibility greater. Except as the government regulates rates and service in connection with the railroads and public utilities and requires continuity of operation, there certainly is no more call for regulating the wages of railroad and public utility employes than there is for regulating the wages of workmen in other branches of industry, and therefore, in so far as the railroads and the public utilities fall short of being monopolies subject to effective regulation as to rates,

service and continuity of operation, it will be difficult, if not inappropriate, to regulate the wages of their employes.

I have said that the proposition to regulate wages also assumes the theoretical soundness of Ricardo's law, namely that wages tend to be reduced through competition to the point where they will merely afford a bare subsistence for the laborer and enable him to keep the supply of labor intact through the rearing of children. It seems hardly necessary to restate the argument in favor of Ricardo's law as a broad theoretical proposition. Like the Malthusian law, it is subject to modification in various ways by facts and conditions that diverge from or controvert the facts and conditions assumed. The Ricardian law is valid enough, however, to cause a general recognition of the necessity either of public wage regulation or of collective bargaining in order to enable any particular class of workmen to improve their status in society and protect themselves in the enjoyment of a standard of living above that which would be forced upon them if they submitted entirely to the processes of free and active competition among individual workmen seeking for the jobs. Here again we might say that trade unionism has received the general sanction of society, and yet if we did say that we should be subjected to widespread and violent criticism. Nevertheless, I believe it to be a fact that the preponderant opinion of those who have carefully studied the relations of capital and labor and the relations which the masses of the people, constituting the employes of capital, bear to the institutions and functions of democracy, is to the effect that trade unions are a necessary and effective means of securing certain highly desirable and necessary ends of social economy and social justice. The dangers incident to the operation of railroads and, to a certain extent, of local utilities, together with the semi-monopoly ownership and control of these enterprises, make it especially important that the employes should be organized in order to protect themselves and to establish their status at a point where they are physically and mentally in a condition to render the safe and adequate service which the public demands. Moreover, the fact that the railroads, even where they are under diverse ownership and diverse management, are more or less closely banded together, and the fact that local public utilities, though still in considerable measure owned and operated as truly local institutions, nevertheless have nation-wide semi-official organ-

izations, make it permissible, if not necessary, that the employes of a particular railroad or of a particular local utility should be united with the employes of similar utilities in other localities through such organizations as the railroad brotherhoods and the Amalgamated Association of Street and Electric Railway Employes. If the employes are to be left to protect themselves by means of the trade union, it is no more a violation of home rule for the local street railway men to put their grievances in the hands of an outsider with the power of a national organization behind him than it is for the owners of a local transit line to import thousands of professional strike-breakers from distant cities in order to enable them to resist the demands of their local employes and compel them to return to work unsatisfied, or else lose their jobs. I think we may take it for granted that unionism will persist and ought to persist among the employes of the railroads and the public utilities unless some other effective means of protecting and promoting the interests of the employes is devised.

This brings us to the nub of the whole problem. We have monopoly or semi-monopoly on one side and trade unionism on the other. The final sanction to which the trade union has to appeal for the enforcement of its demands is the strike, and it is as a result of the peculiar way in which a strike, in connection with the railroads and public utilities, affects the interests of the general public, that our problem becomes acute. In the President's recent negotiations to prevent a strike on the railroads of the United States and in the steps taken by the mayor and the chairman of the public service commission of New York City to prevent a strike of the traction employes, the paramountcy of the interests of the general public in controversies of this kind was clearly brought out, and it is as a result of the development of situations like these that we are now engaged in a discussion of the possibility of substituting for the strike a mode of governmental action that will safeguard the interests of the public while not sacrificing those of the employes whose only ultimate weapon for self-defence and the promotion of their legitimate interests has heretofore been the strike. Of course, it may be stated generally that from the standpoint of the public at large the strike, as applied to any great industry, is an unsatisfactory procedure. Society is interested in the efficiency of all industries, for their sole charter of existence is social need. But the interest of the public in

the *continuity* of particular industrial enterprises varies according to the nature of the enterprise and according to the economic conditions existing at the particular time. In so far as the interruption of the continuity of industrial operations brings sudden and overwhelming hardship upon the employes who are thrown out of work, the government has an interest because of its ultimate responsibility for the life and welfare of all the people within its jurisdiction. Beyond this, however, the public interest in continuity is chiefly confined to those industries which are monopolistic or semi-monopolistic and by the interruption of which a constant public need is interfered with. In so far as the meat-packing business of the United States or the milk supply of a particular city or the mining of coal assumes the characteristics of monopoly, even though these industries are not generally classed as public utilities and have not been brought under the supervision of the Interstate Commerce Commission or state or local public service commissions, a strike in any one of them, causing an interruption of a necessary general service, runs counter to a predominant public interest and justifies the government, as the representative of this interest, in taking such action as may be effective to reëstablish the continuity of service. But when we come to the railroads and to full-fledged public utilities such as local transit, water supply, telephone service and lighting and power service in cities, we touch upon industrial enterprises in which, on account of the universal demand for their service, the impossibility of accumulating or storing the service to bridge over interruptions, and the peculiar conditions under which the service is rendered, it is absolutely imperative that continuity of operation be maintained.

These are semi-governmental services and their cessation breeds the perils both of universal want and of intolerable anarchy. A street railway strike in a great city, if it effects an interruption of service, creates a temporary paralysis of the processes of economic and social life in the entire community. The threatened strike on the railroads of the United States last August was regarded as an impending national calamity almost the equivalent of war in the intense suffering and the colossal losses which it would cause. Such a strike is always the signal for the unleashing of the crude elemental forces of society which readily break through the thin veneer of civilization and for the time being endanger the whole

structure. What an effective street railway or railroad strike means to the community is more or less patent to all, as a result of the many instances in which strikes of this nature have been undertaken during the past twenty-five years. What a telephone strike that would actually interrupt telephone communication within a great city for a single day would mean at this stage of urban civilization, is not so easily recognized because we have had very limited experience with telephone strikers. In other public utilities, such as gas, electricity and water supply, effective strikes are practically unknown. The smaller number of employes and the comparative ease with which competent workmen could be recruited from other industries or from men in the same industry who have been promoted to higher positions, to take the place of strikers, have prevented the strike from becoming a serious public menace and it might well be, if it is deemed necessary to adopt the policy of fixing wages by act of the Interstate Commerce Commission and the state public service commissions, that, at least in the beginning, this policy should be limited to transportation and communication services.

We may safely assert that legal measures should be adopted to prevent these strikes on transportation lines—interstate, interurban and local—and also on telephone and telegraph systems. But this does not require that the Interstate Commerce Commission and the state public service commissions should at once embark upon the policy of wholesale wage-fixing. It would seem to be much more feasible to work out some plan like that recently suggested by Mr. Henry R. Towne of the Merchants' Association of New York, under which the organization of employes would not be interfered with and collective bargaining would not be abandoned, but the final sanction of the employes' demands would not be the strike, but arbitration, with an appeal to the Interstate Commerce Commission or the state public utility commission, as the case may be. Every employe would have to enter into an individual contract with the company employing him, sanctioned by law, providing against concerted action to cause an interruption of service. But if the employes of railroads and public utilities are to give up the ultimate right to strike and must rely upon the justice and mercy of the commissions, they will have to be prepared to go into politics to see that the commissioners are not selected and owned by the

companies. As the control of the commissions by the corporations is, next to ignorance, laziness and blatancy on the part of commissioners, the greatest possible menace to the regulation movement, perhaps it would not come amiss to have another powerful organized interest taking a hand in the selection of the commissioners. The public would still have to "foot the bills," as it must do in any case, but it should not be forgotten that within reasonable limits good service is, to the public, more important than low rates, and that with the legitimate demands of the employes taken care of good service is much more likely to be provided than otherwise would be the case. If the railroads and the public service corporations should combine with the employes to control the commissions and exploit the general public, then the latter, if it cannot organize public opinion and its own voting strength effectively to resist the combination of special interests, will have to resort to public ownership and operation.

LEGISLATION CONCERNING THE RAILROAD SERVICE[1]

By Emory R. Johnson, Ph.D., Sc.D.,

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I am asked to state how the public regards the controversy that has arisen over methods of settling disputes between the railroad companies and their employes. While I think I can speak without bias or partisanship, I of course recognize it to be impossible for any one individual to represent the views of the general public on a complicated controversial question such as the one under consideration. Indeed, it is probable that the public as a whole has reached no single definite conclusion. Although I shall venture to state what I think is the belief of the public concerning the principles and methods that should be followed in deciding controversies between the men and the managers in the railroad service, it will be understood that in advocating the adoption of remedial measures I can represent the views of only one member of the public.

It will at least afford a starting point and may assist in simplifying the problem under discussion to begin with a statement of certain principles upon which there may be presumed to be a general agreement on the part of the public.

I am sure the public is of the opinion that for all classes of railroad employes the hours of labor ought to be reasonable, and the wages fair and generous. Organized effort on the part of the employes to secure fair wages and reasonable hours of labor has always met with sympathy on the part of the public.

The railroad companies, it is further agreed, should be permitted to make such charges for their services and to earn such revenues as may be needed to enable the carriers to pay good wages for reasonable hours of service. Individual shippers and local communities, under the stress of competition, will naturally oppose increases in railroad rates and will press for a reduction of transportation charges; and, indeed, the country as a whole, represented by its state and federal railroad commissions, will inquire into the reasonableness of

[1] An address delivered before the Economic Club of Philadelphia, November 24, 1916.

existing and proposed railroad charges; but public opinion as a whole will justify the commissions in allowing the railroads incomes large enough to enable them to deal generously with their employes.

A third principle concerning which the people of the United States are unanimous is that the interests of the public are superior to the interests of either the carriers or their employes. The public intends to deal justly with railroad managers and with their employes. It expects justice in return; and will insist that the welfare of the hundred million people of the United States shall be placed above any temporary advantage or need of either employes or carriers.

It is evident to the public that the transportation service must not be interrupted by any controversy between employers and employed in the railroad service. The public, represented by the federal government, can permit neither the railroad managers nor their employes to stop the service of railroad transportation. Not only the welfare but the very life of society is at stake. The railroads must run, else people will starve, anarchy and violence will displace orderly government, and there will ensue what President Wilson has termed a "tragical national calamity." It should be understood that whatever happens the trains must run, and that all the power of the government of the United States will, if necessary, be exercised to that end.

It follows logically from the foregoing conclusion that disputes between railroad companies and their employes must be settled by mediation or arbitration and not by any action of employers or employes that will stop transportation. To quote the words of President Wilson, "there should be firm adherence . . . . to the principle of arbitration in industrial disputes." It is necessary and desirable, as the President states, that the country "take counsel . . . . with regard to the best means . . . . of securing calm and fair arbitration of all industrial disputes in the days to come." Means and methods are appropriate subjects of debate, but the debate should be only as to means and not as to the necessity of the settlement of controversies without interruption of the railroad service.

The reasons for this will be stated presently, but before stating them I will venture the opinion that the majority of the public is

agreed upon one other principle, that is, that in so far as possible wages and hours of labor should be adjusted by negotiations between employes and employers, that wages, outside of the government service, ought not to be fixed by statute, and that the hours of labor should be established by law only when the safety and health of society and the protection of the weak against the strong make such statutory action clearly necessary. It is, I think, the belief of a majority of the American people that this principle is fundamentally sound; that it is in the interest of the workingman and is promotive of social welfare and progress that men in their organized capacity should continue to negotiate with their employers as to wages and conditions of service. This view, I take it, is held by most leaders of organized labor as well as by other men of responsibility.

The application of the principle that wages and hours of labor should be adjusted by negotiation between employes and employers instead of by statute necessarily involves the broad question of the wisdom or unwisdom of establishing by law a general eight-hour labor day. Many zealous friends of labor are seeking the enactment of laws limiting labor to eight hours a day. The effect of such legislation upon the present and future welfare of wage laborers should be carefully considered. The men who work for wages have, possibly, made more progress in the United States than in any other country. This progress has been greatly promoted by the organization of labor and by negotiation between organized labor and its employers. It is now proposed to fix hours of labor rigidly by law rather than to adjust them by negotiation between the parties in interest. The significance and consequences of this change should be carefully weighed.

The best method to settle differences that arise between employers and employes is by direct negotiations carried on by representatives of the parties in interest. The next best means of disposing of a dispute is by mediation and conciliation by responsible government officials who act as the representatives of the public. When an adjustment is finally made as a result of mediation, neither party feels that he has sacrificed his vital interests. Arbitration is the next best method of adjusting labor troubles. For many years arbitration has been successfully employed in the adjustment of controversies between the railroads and their employes. The present agency for the peaceful settlement of railway labor

disputes can doubtless be improved by making such changes as experience shows to be desirable; but nothing in past experience indicates a failure of arbitration.

The advantages of arbitration were well illustrated in the adjustment of a disagreement that arose between the Southern Pacific Company and its telegraphers represented by the Order of Railroad Telegraphers. The trouble arose at the close of 1906. For a number of years the relations of the railroad company and its telegraphers had been determined by a schedule or agreement. The time came when the employes felt that their wages should be increased and that Sunday labor should be limited to five hours. The employers also desired certain changes made in the "schedule" or agreement with the telegraphers. Under the agreement that had been in force for some time the company was limited to the seniority rule of appointment and promotion of telegraphers and was thus prevented from introducing new blood into the service. The agreement also required the company to select its station agents from the telegraphers having seniority of service, and the company wished greater freedom in the selection of the station agents. The company and the employes, being unable to adjust their differences, agreed to submit the controversy to arbitration. This was the second arbitration under the Erdman Act and I was chosen by the government as the third arbitrator and acted as chairman of the board. The award that resulted from the arbitration gave the employes half-time on Sunday, or, in lieu thereof, a leave of absence on full pay for twenty-six days per annum. The employes were also given an increase in wages of seven and one-half per cent. The company was relieved from the limitations of the seniority rule by which their selection of telegraphers had been restricted, and the company was also permitted to select men who were not telegraphers to serve as agents at the more important stations. Although certain features of the award were contested in the courts, the controversy was, in the end, adjusted practically in accordance with the award of the arbitration board and in a manner that was apparently acceptable to both sides.

There can be no doubt that the public believes that all disputes between railroad employes and employers that cannot be settled by negotiation or conciliation should be decided by arbitration. The public believes arbitration to be right in principle, and that ap-

propriate measures should be taken as soon as practicable to carry out the principle in practice. This may ultimately require the adoption of laws making obligatory the arbitration of controversies in the railway service. Compulsory arbitration may not be necessary in industrial labor disputes, but in the case of the railroads, where an interruption to the service is intolerable, only one or the other of two courses of action seems possible.—

One course is to leave arbitration voluntary and optional, as it is at the present time, in which case it should be understood that the government will and must take whatever measures are necessary to prevent either party to a controversy from stopping the service of transportation. The other course, and the one that will probably be adopted as the final solution of the problem, is to make arbitration compulsory in case mediation and conciliation by public officials fail to bring the contestants to a basis of agreement.

During the coming months the country is to give this question serious consideration. Whether the decision will be in favor of compulsory arbitration or in favor of compulsory investigation as a first practicable step towards the final goal it is too early to predict. The present thought of the country regarding the question was admirably stated by Senator Newlands, the chairman of the joint Congressional committee on transportation, which, on the twentieth of November, 1916, began an elaborate investigation into the whole subject of the relationship of the government to the railroads. In outlining the investigation which the committee proposes to make, Senator Newlands stated, among other things:

> As to wages and the hours of labor, it is very evident that under present conditions the only ultimate method of settling a difficulty between a railroad and its employes is a resort to force. And the question is whether a nation pretending to some degree of civilization, which has eliminated the doctrine of force from application to controversies between man and man, and which furnishes judicial tribunals for the settlement of these controversies, and which is now and has been for years endeavoring internationally to secure a system under which the nations of the earth will create similar tribunals for the adjustment of international disputes without resort to force—whether such a civilized nation can be content to perpetuate the existing condition of things is a subject of profound thought.
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> It would seem to be our highest duty to meet this condition and . . . . to create some system under which a resort to force, the most barbaric and brutal of processes, can be avoided for the settlement of disputes between great employers and vast bodies of employes.

The most important statement that has thus far been made concerning methods to be adopted to give practical effect to the principle of arbitration as a means of settling disputes between railroad employes and managers is the proposal which the President embodied in the legislative program which he laid before Congress on the twenty-ninth of last August.[2] The President asked Congress to adopt

an amendment of the existing federal statute which provides for the mediation, conciliation and arbitration of such controversies as the present by adding to it a

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[2] Since this paper was written, the President has presented his annual message to Congress and has renewed the recommendations previously made. In the annual message the President urged upon Congress the necessity for "the provision for full public investigation and assessment of industrial disputes, and the grant to the Executive of the power to control and operate the railways when necessary in time of war or other like public necessity."

In support of this recommendation, the President argued that:

"The country cannot and should not consent to remain any longer exposed to profound industrial disturbances for lack of additional means of arbitration and conciliation which the Congress can easily and promptly supply. And all will agree that there must be no doubt as to the power of the Executive to make immediate and uninterrupted use of the railroads for the concentration of the military forces of the nation wherever they are needed and whenever they are needed.

"I would hesitate to recommend, and I dare say the Congress would hesitate to act upon the suggestion should I make it, that any man in any occupation should be obliged by law to continue in an employment which he desired to leave. To pass a law which forbade or prevented the individual workman to leave his work before receiving the approval of society in doing so would be to adopt a new principle into our jurisprudence which I take it for granted we are not prepared to introduce. But the proposal that the operation of the railways of the country shall be stopped or interrupted by the concerted action of organized bodies of men until a public investigation shall have been instituted which shall make the whole question at issue plain for the judgment of the opinion of the nation is not to propose any such principle. It is based upon the very different principle that the concerted action of powerful bodies of men shall not be permitted to stop the industrial processes of the nation, at any rate before the nation shall have had an opportunity to acquaint itself with the merits of the case as between employe and employer, time to form its opinion upon an impartial statement of the merits, and opportunity to consider all practicable means of conciliation or arbitration. I can see nothing in that proposition but the justifiable safeguarding by society of the necessary processes of its very life. There is nothing arbitrary or unjust in it unless it be arbitrarily and unjustly done. It can and should be done with a full and scrupulous regard for the interests and liberties of all concerned as well as for the permanent interests of society itself."

provision that in case the methods of accommodation now provided for should fail, a full public investigation of the merits of every such dispute shall be instituted and completed before a strike or lockout may lawfully be attempted.

This proposal of the President contains the essential principle of the Canadian Industrial Disputes Act which applies not only to railroads but to all public utilities and to the coal and metal mining industries. As stated in a bulletin published by the United States Bureau of Labor:

In these industries and occupations [in Canada] it is unlawful for employers to lock out their workmen or for employes to strike until an investigation of the causes of the dispute has been made by a government board appointed for this particular case and the board's report has been published. After the investigation is completed and the report made, either party may refuse to accept the findings and start a lockout or a strike. The investigating board usually tries by conciliation to bring the parties to an agreement, so that the functions of the board considerably exceed those of a body appointed solely to procure information.

It was evidently the thought of the President that a full public investigation of the merits of a dispute between railroad managers and employes would disclose a basis of settlement that would be so manifestly just as to cause both parties to accept the findings of the board of investigation. That might uniformly be the result; but such a happy settlement of controversies might not always be accomplished; and there would still be the danger of a strike or lockout.

The President realized that a law providing for compulsory investigation of railway disputes before a strike or lockout can be lawfully declared must also provide against an interruption of the service of transportation, and he recommended as a part of his legislative program—

The lodgment in the hands of the executive of the power, in case of military necessity, to take control of such portions and such rolling stock of the railways of the country as may be required for military use, and to operate them for military purposes with authority to draft into the military service of the United States such train crews and administrative officials as the circumstances require for their safe and efficient use.

To one who views the question from the standpoint of the public interests, it would seem as logical and as imperative that the executive branch of the government should have the power to take over and run the railroads, in order thereby to prevent violence,

disorder and starvation as that the government should be authorized to operate railroads "in the case of military necessity" and "as a matter of national defense." It is possible that the President included among "military purposes" such steps as might be necessary to prevent the tying up of the railroads and the consequent public disorder and starvation; but the President took pains to state that "the power conferred in this matter should be carefully and explicitly limited to cases of military necessity."[3]

Should the United States decide to adopt compulsory arbitration it will not mean experimenting with a new and untried method of enforcing the peaceful settlement of railway labor disputes. Compulsory arbitration has been in successful operation for a number of years in New Zealand, New South Wales, Western Australia, and in the Australian Commonwealth. The purposes of the Australian Commonwealth conciliation and arbitration acts of 1904, and subsequent years, as set forth in the acts themselves, are:

> To prevent strikes and lockouts; to constitute a federal court of arbitration with power to provide for the amicable settlement of disputes; and failing of such settlement to make an award; to make and enforce agreements between employers and employes; to enable states to refer to it; and to encourage organizations of employers and employes, who may approach the court with disputes.[4]

According to the testimony of two impartial Australian writers:

> On the whole, compulsory arbitration in Australia has been an undoubted success in so far as results can be judged during the comparatively short time the system has been in operation. In New Zealand, where it has been in vogue longer than anywhere else, the success has been unqualified. True, the strength of the system has never been tested. There has been no decisive struggle between masters and men. But the absence of such a struggle is in itself a sign of efficiency, and of the satisfaction given to both the factors in industrial prosperity. . . . . There can be no doubt that compulsory arbitration with its concomitant awards rests on a sound basis.[5]

If, as I have ventured to assert, the public is definitely of the opinion that the public interests are above the interests of the railroad managers or their employes, that disputes in the railroad service, when negotiation and conciliation shall fail, must be settled by peace-

[3] The language subsequently used by the President in his annual message was "the grant to the Executive of the power to control and operate the railways in time of war *or other like public necessity.*"

[4] *Annals of American Academy*, Vol. 37, p. 213.

[5] *Ibid.*, 220, 221.

ful methods, and that the public cannot permit strikes or lockouts to interrupt transportation, then we must conclude that the public will necessarily give the President the power to keep the railroads running. This would be a power of great magnitude; but no greater than, indeed not so great as, the military power of the President.

The mere possession of great power is often sufficient to make its exercise unnecessary. It is altogether probable that, if those who operate the railroads realize that the government can and will, whenever necessary, take over and manage the railroads, they will take no action to prevent the railroads from operating. The employers and the employes in the railroad service owe it to the public to adopt means of settling their disputes without bringing universal distress upon the country; the public, acting through the government, must insist upon the peaceful adjustment of railroad controversies and must adopt the measures necessary to accomplish that end.

THE RAILROAD HOURS OF LABOR LAW

By Charles R. Van Hise,
President, University of Wisconsin.

In this discussion I represent neither capital nor union, but merely the part of the people of the United States that too often have been disregarded by both—the public.

I am in favor of the organization of capital whenever capital carries on its enterprises with due consideration for the welfare of the people. I have always been strongly in favor of the organization of labor; and I am now in favor of supporting the unions whenever they push their own interests with due consideration for the interests of the public.

As a background for the discussion it is necessary to consider for a moment the exceptional situation which exists for the public utilities. It is now generally recognized that the public utilities, and particularly the railroads, are subject to regulation through commission so far as the managements are concerned. The movement for their control was most strenuously resisted by the managers. Indeed they insisted that their business was a private one which they should handle as they pleased, but the public by sheer force imposed control upon them despite their most desperate resistance.

At the present time not only the right but the imperative necessity for public control of the railroads is recognized by all.

But it is to be noted that regulation only concerns the management. There is no public control in any whatsoever of the employes. Thus far the control has been one-sided.

In the early railroad controversies between managers and employes, the managers were the stronger. The bargaining was individual, or it concerned a division, or at most a railroad system. Under these conditions not infrequently the managers would refuse to arbitrate; and, if they did consent to do so, it was with the greatest reluctance. However, the local unions gradually recognized the increasing power given them by coöperation, and in 1902 began the concerted movement under which a union made demands upon the employers for an entire district. The increased power of

the unions given by the concerted movement, when once appreciated, led them to a number of such movements within a few years. Each of these was confined to one union but extended over a large section of the country. This may be illustrated by the engineers' concerted movement of 1912 for the northeastern part of the United States. Such a movement gave the unions equal or greater power with the managers; and then the managers were ready to arbitrate, and the unions were somewhat hesitant.

Finally in the spring of the present year a concerted movement of the four powerful unions operating trains—locomotive engineers, firemen, conductors, and trainmen—for the entire United States was organized and demands made upon the managers. Under these circumstances the power of the unions was far greater than that of the managers; and consequently the managers were ready to arbitrate and the unions would not agree to do so.

History shows that between the two there is no choice. When the employers were in the saddle they gave little heed to the public except as they were compelled to do so. Now that the unions are in the saddle they have begun to use their power in precisely the same manner as did the managers, giving no heed to the public. The question now is: will the unions pursue this policy until compelled to give such consideration, or will they be wise enough, knowing the history in regard to the managers, to steer a better course?

In the controversy under discussion the unions demanded (1) an eight-hour basis for the hundred mile run instead of the ten-hour basis, (2) time and a half for overtime, and (3) the retention of all present advantages. After the managers had agreed to arbitrate and the unions refused to arbitrate, President Wilson proposed, on August 15, 1916, that the railroads grant the eight-hour day and that the workers abandon the demand for time and a half for overtime.

It is not now possible to discuss the merits of either of these proposals. I merely wish to point out that the demand for the eight-hour day is not what it appears to be. The division points on the railroad have been arranged upon the basis of the hundred mile run as the day's work, controlled, however, to a considerable extent by the large centers which necessarily are terminals. By act of Congress the position of the terminals cannot be changed, and the basis of the day must remain the hundred mile run.

Already it has been recognized in the passenger service that five hours is a reasonable time in which to run one hundred miles, and the men get overtime if more than five hours are used. The question in the case of the freight service is whether or not eight hours is a reasonable time in which upon the average to make one hundred miles. In this connection it should be recalled that the harder service involved by the powerful locomotives and heavy freight trains is recognized by variable compensations in proportion to the character of the engine, and is greater per mile run than in the passenger service. A law requiring the men operating the trains to cease work after eight hours is wholly impracticable.

Since this is so, to call the Adamson law an eight-hour day law is a misnomer. If eight hours is a reasonable time in which to make one hundred miles in the freight service, then overtime should be paid after eight hours; if not, it should not be paid. This is a question so exceedingly complicated and involves so many factors that it would be folly on my part to give an opinion concerning its merits without a most exhaustive investigation.

However, under threat of strike, with the recommendation of the President, Congress in four days passed a law, which was signed by the President September 3, 1916, making eight hours the basis of the day's work and at the same time disregarded another recommendation of the President that the law should be amended along the lines of the Canadian Industrial Disputes Act.

The additional cost of operating the railroads due to the law, estimated at many millions of dollars, now passes on to the public. Under regulation the railroads are limited to reasonable charges by the Interstate Commerce Commission. Any great increase in the cost of operating the roads sooner or later passes on to the public. Only recently a 5 per cent advance in freight rates has been authorized. The public must pay the additional millions, because of the Adamson law, in advance of its being ascertained whether or not it should take the burden. The claims of the men may have been just or unjust. I pass no opinion upon them. If the claims were just, why not have had an investigation by an impartial tribunal in which the public, the managers, and the employes were represented? If they were just, the demands would have been granted; and if they were unjust, they would have been denied, and the public would not have been mulcted of a great sum of money. However this

is a trivial matter as compared with the precedent which has been set.

We have a situation new in this country in which the unions tell the government what laws shall be passed and it meekly obeys.

The principle has been yielded that 400,000 men can refuse to have their cause investigated and adjudicated, threaten strike, and secure legislation, thus holding up 100,000,000 people.

As one of the 100,000,000, I enter my most earnest protest against this surrender of the government. The unions are now encouraged by their success. What is to prevent them two years hence or four years hence, when an election is pending, from demanding of a timid government that they receive time and a half for overtime, without any adjudication of the merits of the question?

But suppose the strike had been called and it had been successful, what would be the situation? In the United States there is one city, New York, with over 5,000,000 population; one city, Chicago, with more than 2,000,000; one, Philadelphia, with more than 1,500,000; there are five cities, St. Louis, Boston, Cleveland, Baltimore and Pittsburgh, with more than 500,000 population; and eleven cities, Detroit, Buffalo, San Francisco, Milwaukee, Cincinnati, Newark, New Orleans, Washington, Los Angeles, Minneapolis, and Jersey City, with more than 250,000.

No other country in the world possesses so many large cities; just as there is no other country which approximates ours in railroad mileage. One is a function of the other; neither could exist alone. Large cities are one of the consequences of the modern industrial system. In ancient times there were no cities comparable in magnitude even to those of Chicago or Philadelphia, much less that of New York, for the simple reason that the people could not have been fed. Only by the continuous operation of the railroads can the people in the great cities secure food.

If a railway strike was declared and it was successful, the babies would begin to suffer for milk in a day; the perishable foods would be scanty in a week; and before a month had gone by the people would be in want for the very necessities of life.

If the operation of the trains ceased for any considerable time the greater number of the manufactories would be obliged to discontinue, both because they could not secure supplies and could not sell their products. The financial losses would be incalculable,

to be reckoned as the lowest unit, in hundreds of millions of dollars. Hundreds of thousands of laborers would be out of employment; and they would not have the money to purchase food even if it were obtainable.

The loss of life would be worst among the families of laboring men and especially the babies. The well-to-do would be able to purchase at high prices the scanty foods obtainable; and the rich, while they might suffer financial loss, would endure no hardship. The unions would be responsible not only for the paralysis of the trade and industry of the country but for the death of perhaps hundreds and the misery of millions of people less fortunate in compensation and in position than the men of the unions. The disaster to the nation would be far beyond my power to conceive or describe.

If the tremendous responsibility of a general railway strike is once appreciated by the men of the unions, I have a better opinion of them than to believe that they will ever bring dire disaster upon the country simply to advance their own selfish interests. They should unite with the public in finding a solution of the problem which will make a railroad strike in the future an impossibility. If they refuse to do this it will be necessary, just as it was with the managers, to force control upon them. The railroads *must be* continuously operated. Some other way must be found than by strike or lockout to settle the differences between the managers and employes for the public utilities.

If the question ever goes to an issue, there can be no doubt of the result. President Wheeler, of the University of California, in his first address as exchange professor at the University of Berlin, said: "In America, the ultimate source of authority is public opinion." Either managers or employes who refuse to recognize the power of this public opinion when united would be crushed. If public opinion were once united, as it would be if a strike were called, there would be a power which Congress would fear even more than it fears the unions.

What, then, is the line of progress? This is the question which deeply concerns us. The answer must rest upon the principle that the interest of the public in the operation of the railroads is paramount, and that the interests of the managers and unions are strictly subordinate. To this paramount interest both must sub-

mit. An intolerable situation exists so long as any group or groups of men, whether managers or union, can halt the continuous operation of the trains.

We now turn for a moment to the experience of other countries to assist us in finding a way. In 1910 a general railway strike was called in France; and the conditions above described threatened that country. Minister Aristide Briand immediately, under the authority of military law, commanded the mobilization of the strikers for three weeks of military training. The military duty to which they were summoned was running the trains. Disobedience would entail punishment under military law. The strike was broken in six days.

Later, in discussing the matter, Briand declared "that public servants must be required to discharge their duties regularly and without interruption." Indeed he regarded the operation of the railroads as so imperative that he declared:

> If the government had not found in the law that which enabled it to remain master of the frontiers of France, and master of its railways, which are indispensible instruments of the national defense; if, in a word, the government had found it necessary to resort to illegality, it would have done so.

This he regarded as defensible under the doctrine *Salus publica suprema lex.* Briand, at this most critical time in the history of France, is Prime Minister of that country.

In Germany, so clearly recognized is the public interest in the operation of the trains that unionism is not allowed on the railroads, although recognized as legitimate in private industry. In New Zealand, strikes and lockouts are illegal altogether until a hearing is held before a court of arbitration and recommendations made. The law is so operated that lockouts and strikes have practically ceased. In Australia is a conciliation and arbitration act with provisions similar to those of New Zealand, providing for compulsory arbitration in all labor disputes. In Canada strikes and lockouts are illegal until a board of conciliation has investigated the facts and made recommendations for the settlement of the dispute. In operation, this law has greatly reduced the number of important strikes, because either side failing to accept the recommendations of the board has a unanimous public sentiment against it. South Africa has a law for preventing strikes and lockouts similar to that of Canada.

The facts cited show how far the United States are behind many other countries in the machinery to control emergencies such as arose last autumn.

In this country we have only the Newlands act which furnishes mediation and arbitration provided both sides agree. I cannot now go into the details of the law. Its impotency in an emergency has been shown. As a minimum step this law should be amended along the line of the Canadian Industrial Disputes Act, so as to compel investigation and recommendations by a tribunal in which the public is represented before a strike can be declared upon the railroads. It is probable that in any given case, if such a law were in force, so that public opinion could be crystallized by an investigation and recommendations of the board, neither side would dare disregard those recommendations.

If Congress does not pass the measures suggested or some other, with similar purposes, if it makes no attempt to remedy the situation, and the country is left in a position in which it may again be held up, that body will be indeed recreant to its trust.

I have no doubt the courts will maintain that compliance with the law proposed is not "involuntary servitude." The public interest in the operation of the railroads is so dominating that the same principles are applicable that have been held to apply in the case of the Seamen's Act and in regard to quitting trains between terminals. A strike in the railway service is of such momentous consequence to the public that the right of concerted action to discontinue service *must be qualified.*

However, even if the measure proposed be enacted into law, it is not a final solution of the problem under discussion. There is only one final solution of that problem and that is to carry the principle of regulation to its logical conclusion.

At the beginning of my paper I pointed out that regulation has been accepted as a public policy both national and state so far as the managers are concerned. The principle should be carried to the employes as well. A commission should be granted the power to fix wages for public utilities. I do not care whether there be created a separate wage commission or there be added a branch to the Interstate Commerce Commission for this purpose. There would be some advantages in having a separate commission; for then there would be one body concerned primarily with rates and

another concerned primarily with wages. Much of the statistical investigation which is necessary for one may be used by the other; and there could be a central organized bureau of experts and statisticians who would be continually collecting information for both.

Why is the proposed law logical? Why is it necessary? Because if the public interest is paramount in the operation of public utilities, then the rates allowed to be charged decide what the railroads can pay in wages. The railroads should be allowed to charge rates which give a fair dividend and no more upon the stock, pay the interest on the bonds, and pay a just wage not to one group of employes, but to all groups. A wage commission would not raise the pay of the highest paid group and, by indirection, hold horizontal or depress the pay of the poorest paid group.

The proposed amendment of the Newlands Act, while it might prevent strikes and lockouts and so avoid the greatest injury to the public, would not remedy the defect of an unjust scale of wages. It would not put the employes of the railroad upon an equal basis. If, however, there were a wage commission which at all times was studying the question of the proper relative wages of the different employes of the railroads and in relation to the wages that are paid in other industries; if it could study the question with relation to times of prosperity and times of stagnation, such a commission would be better able to determine what is a fair wage for each class of employes than are the managers or are the men.

We cannot expect the men to surrender the right to strike unless there be provided some measure which will give them fair wages and proper conditions of service; and, therefore, if the right to strike is to be curtailed it must be accompanied by some law which will insure fair treatment; and this can only be accomplished through a wage commission.

My remedies, therefore, for the existing railroad situation are, first, alleviation:—amend the Newlands Act so as to prohibit a railway strike until after an investigation of the controversy and recommendations concerning its settlement; and, secondly, as a final solution, the creation of a wage commission either as a branch of the Interstate Commerce Commission or independent of it to handle wages for the railroads.

I do profoundly hope that the present Congress will enact legislation to rescue the country from its present humiliating sit-

uation. There can scarcely be a doubt that every foreign civilized nation was amazed that the United States, which is regarded at this time as the one great neutral nation which must exercise vast moral power upon the belligerents in the settlement of the world war, has so weak and feeble a government, that it cannot handle an economic problem which concerned a small group of its own people. I can scarcely think of our position before the civilized people of the world without my cheeks becoming hot with shame. I hope that we may escape from further ignominy, and that never shall a situation recur in which the government of the United States surrenders to a minority insignificant in numbers.

THE ATTITUDE OF THE RAILROAD BROTHERHOODS TOWARD HOURS AND WAGES

By A. B. Garretson,

President, Order of Railway Conductors of America.

To understand the attitude of the brotherhoods toward the question of the shortening of the hours in connection with the wage rate in the late eight-hour movement it is necessary to have some knowledge of the conditions under which train and enginemen serve.

When the brotherhoods came into existence in the militant sense there were no limitations whatever upon the hours of service. Even the twenty-four hours in the calendar day were not a limit. The time to complete a trip, even though it might require two or three times twenty-four hours, was the requirement and no overtime was paid—only the trip allowance being made, whatever it might be. The men, through their organizations, first succeeded in establishing the twelve-hour day, then the ten, but during all those years the greater part of their energy was expended on the question of increasing the wage, while at the same time striving to limit the excessive use of men even where overtime was paid. Every agreement between these organizations and their employing railways used to provide that when a man had been used for a certain period—presumably sixteen hours—he should be entitled to rest, no matter where he might be, but this rule was shamelessly violated and as an outgrowth thereof effort was made by legislative enactment, and what is known as the "Hours of Service Act," fining the employers for permitting men to work a longer period than sixteen continuous hours, was enacted, but under the guise of casualties thousands of men every month, as shown by the reports of the Interstate Commerce Commission, are working periods ranging from sixteen to sixty-five hours or upwards, and experience has shown that the enactment of that sixteen-hour law operated to establish a sixteen-hour day instead of a ten-hour day, as was in force and effect, each hour thereof being paid at the pro rata rate under the present overtime regulations.

The men therefore determined to concentrate the energies of

the four brotherhoods upon the effort to do away with such excessive hours and they formulated the demand for the eight-hour day, accompanied by the demand for time and one-half time for overtime as a purely punitive measure in the hope of making it uneconomic to use men for the excessive periods which they were being used under the going arrangement, which prompted the company to use the men up to the sixteenth hour for the same rate of pay that was paid to them for the first or any one of the succeeding ten hours.

Had the real purpose of the men been only an increase in wages the punitive overtime would never have been demanded because the true incentive to work the men long hours lies in the economic feature thereof, and the way to have produced an increase in earnings would have been to have demanded the eight-hour day with overtime on the pro rata basis, as has formerly obtained. The one feature of their demand which the men most strongly insisted upon was the punitive overtime because they realized that no other agency would decrease the hours required of them to the same extent. And they further realized from practical knowledge of operation that overtime in train service is, all statements to the contrary notwithstanding, largely a controllable factor which will be controlled whenever the profit is taken from it.

The following statement by President Lovett of the Harriman Lines made before the Senate Committee on Interstate Commerce Commission in the hearing on the eight-hour bill brought out the real attitude of the railways:

> We will run the railroads just as we do now and pay the overtime. That is the cheapest way out. Of course, we will do it the cheapest way we can. . . . . That is the deliberate judgment of these men (railroad operating officers) as being the most economical.

In other words, the railroad companies were desirous of working men for the sixteen-hour day if it brought economic gain. Not the slightest trace of humanism appeared in their attitude—just the reiteration of the ages old position—that life, comfort, safety and happiness must all be relegated to the rear rank when profits loom large in the foreground.

The real questions were: Should men entrusted with the safety of train movement be required to work hours that make "Safety First" an empty phrase? Or should they be permitted to cease labor as soon after the lapse of a period which every tribunal,

social or hygienic in its character, has declared to be as long as men should be allowed or required to work, in view of the character of their service? Or, is the contention of the railway officials to be upheld that men should be worked as long as it is economic for the employer to work them?

The position of the railway employes was that they would shorten the hours with a probable diminution of earnings in preference to taking an increase in the wage scale, leaving the present time requirements made upon them in effect.

GOVERNMENT ARBITRATION AND MEDIATION

By James T. Young,

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Is government arbitration and mediation a success in the United States?

Should it be made compulsory?

Should the law forbid the calling of a railway strike until a public investigation and report can first be made?

What change is required in our present government system for settling disputes?

The present article is designed to show:

That the government system has succeeded far beyond the strongest expectation of its friends;

That this success has been won in the settlement of the same kind of labor disputes as those now coming up in national and local fields;

That these results have been attained without the element of compulsion, which is therefore unnecessary and even undesirable;

That the benefits of arbitration would be lost, and perhaps the whole plan defeated, by prohibiting strikes until an official investigation could be made;

That the only compulsory feature of a government system should be a public investigation and report.

The annual loss from strikes and lockouts in the United States now equals the fire loss, which is about $250,000,000. All are agreed that this waste of the national strength should be stopped, by government settlement if possible. But beyond this point there is the greatest diversity of opinion and misunderstanding of the facts. The general popular belief is that arbitration is the main feature of our present plan of settlement, and that since arbitration has failed (!) we must work out a new method. Few understand that the chief and most successful part of our system is "mediation," or, as it is sometimes called, "conciliation." In order to reach any conclusions on our future policy, we must first clear up these misunderstandings.

In both the national and state laws a sharp distinction is made

between mediation and arbitration. The first effort of public officials, when a dispute arises, is to "mediate." They interview each party to the dispute *separately* and secure the utmost concessions which each is willing to make. Next they try to bring about a settlement on the basis of these concessions. *This plan now disposes of over four-fifths of the railway cases that come up.* Arbitration, however, is entirely different. If the officials fail to secure enough concessions to settle the dispute, they bend their efforts towards obtaining an agreement of the parties to refer the dispute to a board of arbitration. This is the substance of the Erdman Act, the Newlands Act and all the state arbitration laws. Bearing this distinction in mind, let us glance at some of the results of the federal and state systems.

Three national laws have been passed to provide a method of settling disputes on interstate railways.

The law of 1888 was in one respect the best of the three, although it is no longer in force. It provided that the President might appoint two investigators who, together with the United States Commissioner of Labor, should form a temporary commission to examine the causes of any interstate railway controversy, the conditions which accompanied it, "and the best means for adjusting it." The report of this body was to be transmitted to the President and Congress. Such a purely investigating commission might be appointed on the request of either party or by the President himself, or need not be appointed at all. The act also contained a weak provision for a board of arbitration to be chosen by the parties if they wished, which should render a decision on all the matters in dispute. This decision, however, was not binding. That is, the parties might agree to arbitration without consenting to abide by its awards. This statute, which remained a dead letter on the books for ten years, was never utilized. The reasons are very simple and easily discovered:

(a) The balance of power lay entirely with the railway managers; many of the strikes were complete failures; the unions were on the defensive.

(b) Both sides in the labor controversies of the time were poorly organized. No principles or methods of dealing between labor and capital had yet been worked out. There were no established habits of procedure, but each strike or dispute was an event in itself, sepa-

rate and distinct from all others. We were in the "rule of thumb" stage of opinion on labor controversies.

For these reasons the decade 1888–1898, and even to 1905, represents an era in which arbitration was not the habitual but the most unusual thing to do.

The second law, known as the Erdman Act, was passed in 1898 and provided that the federal officers, on learning of a serious interstate dispute, should attempt to mediate in the method already described. Failing in this they should, if possible, persuade the parties to sign a contract, the terms of which were fixed by the law itself. This contract provided for the submission of the dispute to a board of arbitration composed of three members chosen by the parties themselves. The award made by this board should be binding for a definite period. An appeal might be taken from the board's decision to the federal courts. It is a remarkable fact that only one case was brought up under this law in the first eight years of its history. This shows clearly that the parties concerned, and public opinion in general, had not yet developed to the point where arbitration was a natural and instinctive method of settlement. In the one case that was presented during this time the railways declined arbitration and the government system failed. The employes voted to strike by an almost unanimous ballot, whereupon the managers conceded the substance of the union's demands,—a settlement that could have been easily made by arbitration. Meanwhile in the period from 1901 to 1905 there were 329 strikes affecting the railways, with only this single case of attempted arbitration above described, and it a failure. This would seem to show conclusively that the unwillingness to make use of the previous act was not due to the weakness of the law, but to the lack of experience of the parties and the backward state of public opinion.

Beginning with 1905, however, a complete reversal in conditions took place. Despite the failure of several abortive attempts, the unions had finally got a firm grip upon all the labor supply of the interstate trains. With this there had come a parallel development in the control of railway capital; mergers had taken place; railway systems had been more firmly cemented together; the "community of interest" between competing lines had become a familiar feature of transport management. In 1902 the public had received that dramatic proof of the possibilities of arbitration which we still refer

to as "the" anthracite coal strike. This was probably the last great controversy in which the mining companies felt assured of success in a contest with labor organizations, and when victory was within their reach it was wrested from them by the national executive who forced arbitration. It is difficult to exaggerate the spectacular effect of this case. It established once for all the fact that arbitration on a grand scale in a crisis of national proportions is possible. The similarity of the issues with those arising on the railways was also helpful. This striking demonstration removed the chief obstacle to the use of the Erdman Law, and in the next eight years there followed in rapid succession a series of 61 cases, most of which were finally solved by mediation, there being only 12 in which arbitration was necessary.

The third act, known as the Newlands Law, was passed in July, 1913. It differs from the Erdman Act in only two important points,—the boards of arbitration under the Erdman Act were considered too small by the railway managers; under the Newlands Act they may, by consent of the parties, be doubled to six members instead of three. The new law also provides that the work of mediation shall be undertaken by a special, permanent commissioner of mediation acting with one or two other federal officers, to be designated by the President, and forming a "Board of Mediation and Conciliation." Following the 61 cases presented for settlement under the Erdman Act, 60 more have already been brought up under the Newlands Law, that is, in the last three years as many controversies have been submitted and settled as in the entire preceding twenty-five years. Of these 60 cases, 51 have been settled by mediation and 9 by arbitration.

Taking the entire results of the Erdman and Newlands Laws since 1906, that is, since arbitration has become an accepted method, we observe that a total of 121 cases have been submitted. Of these over 70 were settled by mediation. Of the remainder, 21 cases were settled by arbitration, or by arbitration combined with mediation. In the remaining cases, the services of the mediators were either refused or a direct settlement made without resort to arbitration. This is an astonishing record. Two features stand out with especial prominence—the rapid increase in effectiveness of mediation, and the great importance and breadth of the problems submitted to arbitration. Mediation settled more than half of the

controversies brought up to the board under the Erdman Law, and over four-fifths of those brought in the last three years under the Newlands Act. Among the matters subjected to arbitration were issues ranging from the most minute point up to the entire terms of employment on over 40 railroads; from the discharge of an electric motorman for disobedience of orders to the settlement of pay and basic hours of work per day for many thousands of men.

Since 1910 a great cycle of demands from all of the brotherhoods has been presented to the railways. In November, 1912, the engineers asked considerable increases. The substantial part of these was granted by an award under the Erdman Act. In April, 1913, the firemen followed. Next came the conductors and trainmen in eastern territory in July, 1913, under the Newlands Act, and finally the engineers and firemen in western territory in 1914–1915 under the same law. In every one of these a marked and substantial advance was scored by the employes. It has been claimed that in a recent case the employes discovered that two members of the arbitral board owned stock in the railway concerned. It has also been complained that in some recent controversies the employes have not received all that they might properly expect. These are the only reasons made public for refusing arbitration in 1916. Against them stand the long series of awards above described covering a period of ten years in which the most meticulous care has been taken to preserve both the sensibilities and the substantial justice of the employes' side of each case. Even in the controversy arising over the discharge of a motorman, already mentioned, the arbitration board upheld the discharge on the ground of absolute public responsibility of the railway officers to enforce obedience to train despatchers' orders, but suggested a reinstatement after 60 days' suspension. The same course was taken in a similar case arising under the sixteen hours of service act.

These facts must be weighed in judging the results of our national system. For it is not sufficient that arbitration shall "keep the trains running." A plan of settlement to be permanent must offer more than this. It must afford a means of securing substantial justice. Any system which continuously raised wages in times of business disaster or which kept them down when prosperity was at the flood tide, would be unjust and hostile to the public interest. If arbitration has erred from this standard it has been on the safe

side, in favor of labor. Arbitration has kept the wheels turning and has been fair to labor. It has awarded a marked increase in pay and a reduction of the basic hours of the work day of every interstate train employe in the country.

In the state governments the experience has been less favorable, but shows the same general tendencies as in the national system. Wherever, as in Massachusetts and New York, the *custom* has arisen to refer disputes to arbitration and mediation, the state system has produced results. On the other hand, where public opinion on the question is not active, the parties usually prefer to fight it out among themselves, and the mere presence of an arbitration law on the statute book is of no consequence. This is a counterpart of the early history of the Erdman Act. The habit of arbitration and a public insistence on it must first be formed before an arbitral law can produce any valuable effects.

The state acts have usually followed the Massachusetts statute passed in 1886. It provides for a state board of conciliation (mediation) and arbitration. This board receives notice from the city or town authorities of any dispute which involves more than 25 persons. The parties themselves may also send notice to the board. Upon receiving notice it communicates with both parties and tries to reach an amicable settlement by mediation. Failing in this, it arbitrates. If this also cannot be secured, the board investigates and makes a report, setting forth the causes and assigning the responsibility for the controversy. It may also at any time make an investigation and public report upon any labor controversy affecting the public welfare. There are some important variations in the laws of the other states. In Pennsylvania and Ohio, for example, a single officer is entrusted with these duties. He first mediates and, if unsuccessful, he then encourages the appointment of a special board of arbitration by the parties. In Illinois and New York the state board itself acts as the arbitration tribunal. In some states the legislatures have merely passed an arbitration act and then dismissed the whole matter from their minds. In California there is an admirable "system" but no arbitration, since the legislature has not even appropriated money for the board.

The Massachusetts and New York systems have proven the most successful, particularly the former. In the single year 1915

there were 204 disputes submitted to the state board. Of these, 86 were voluntarily submitted for arbitration; 100 others were settled amicably by mediation. In 18 others, mediation failed and arbitration was refused, so that the board used the power above described of making a public inquiry with recommendations. These were accepted by the parties in all except 5 cases.

A reasonably well administered state system will also greatly shorten the life of any labor controversy. What this means to the community as a whole can best be realized from the figures given by the arbitration board of any large industrial state. If the dispute is serious and widespread and involves the employment of troops to preserve order, the loss to the community is a staggering one. The Ohio board estimates the cost of the Youngstown Sheet and Tube Company strike in 1916 at about $150,000 per day. The value of any plan which cuts short such controversies and promotes a just settlement, therefore, requires no comment. Here the statement of the Massachusetts board in February, 1916, is especially pertinent—"The investigation which the board must make in compliance with the statute in any strike or lockout involving 25 or more employes substantially prevents a long drawn out controversy." This board is also called on frequently for advice by both employers and workmen and aids in the prevention, as well as the settlement, of controversies. It has constantly before it for mediation or arbitration from 20 to 40 cases, and the industries of the state have formed a fixed habit of referring disputes either to the state board or to local tribunals. The members of the board believe that this habit could be strengthened by systematic advertising in the newspapers, calling the attention of employers and unions to their duty to give notice to the board before resorting to a strike or lockout.

In Ohio the results are also excellent, although not as remarkable as in Massachusetts. Local boards are also frequently called on in that state. In the last two and one-half years, 26 industrial disputes have been taken up under the provisions of the act. The number of employes concerned has varied from a mere handful to over 9,000. During this period not a single case of arbitration has occurred, but the state officials have secured settlement through mediation. This has been successful in 11 of the 26, but these 11 include all of the larger and more important cases, except those in

which the chief or sole question was that of hours. Here mediation has been less successful.

At first glance this result seems rather small, but it must be remembered that only the most difficult cases come to mediation in Ohio. Where both sides are well organized and accustomed to dealing with each other, trade agreements or voluntary settlements are the rule, and state settlements are only sought in absolute deadlocks or where organization is weak. It is also notable that violence is almost eliminated during the time that mediation is in progress. Both sides defer all "last resort" measures pending the state attempts to effect a settlement. Mediation has shown a notable influence in removing the bitterness that often occurs in such disputes. This is in part due to the invariable policy followed by mediation boards of seeing each side separately. The Ohio board, in its report for 1916, says on this point: "In mediating strikes in Ohio during the period covered by this report, the representatives have seldom been brought together in conference, but instead confidential conferences have been held first with one side and then with the other until the facts in the case were secured and a satisfactory basis of settlement determined upon by the mediators. Usually the final terms of settlement have come not as a proposal from either side, but as a proposal from the mediators with the definite understanding that unless it was accepted without change by both sides, the proposition would be withdrawn by the mediators and each side would be in exactly its former position. Mediation under this plan does not disclose to either side either the weak points or the strong points in the position of the opposing side."

If, despite all these results, it should be urged that a new type of demand is now arising on the railways viz., for a *reduction of hours*, and that this cannot be settled by compromise, such objection must be weighed against all that we now know of the possibilities of arbitration. Undoubtedly the matter of hours requires an immediate remedy. The present situation on this point is no longer defensible.

The writer has before him the time record of a man who for 12 continuous months in 1915 worked over 11 hours a day, seven days a week, and there are numerous examples of ten-hour, seven-day men. The hours problem is one that requires an immediate solution, whether arbitration succeeds or fails. But that it can

succeed on this very point may be seen from the merest glance at the arbitration awards under the Erdman and Newlands Acts. Hours of work have frequently come up in the demands of the railway brotherhoods, and the establishment of the ten-hour day as a basis of payment on the railways is itself the result of these very arbitrations. Every scintilla of evidence that can be collected shows the ability of the arbitration system to handle this question justly and fairly on the railways. There is no type of demand which today finds so cordial a response in the public mind as the cutting down of working hours to reasonable limits. This definite change in ideas is now a well established part of our social customs; it is thoroughly familiar to the public, and is in line with what may be called our general social policy. It is precisely by inquiry, public report and arbitration that this progress can now be best realized.

In the minds of many persons our present system falls short because it does not provide a legal compulsion for the settlement of disputes in public service industries like the railways. Economic war, they say, is antiquated and should be prevented by the same method that was long ago adopted to stop private war—a compulsory tribunal. Accordingly they ask that either arbitration should be absolutely required by law in public industries or else that, as in Canada, a strike should be forbidden until due notice of the dispute has been given to the public authorities and a period of 30 days allowed for public investigation and report. There is much force, particularly in the latter view. We are undoubtedly approaching a time when it shall be necessary for the parties in interest to stop and at least listen to public opinion before they resort to force. Every consideration of public interest seems to dictate an enforced period of this kind, to be devoted to impartial inquiry and the publication of the facts with an unbiased proposal for the settlement of the dispute. But it is equally clear that we have not yet arrived at this point. Our public opinion has not yet been expressed in definite, unmistakable terms, nor are we willing to enforce any form of compulsion. We must first have some striking and dramatic proof of the need of compulsion before we shall be in earnest about it. There is only one way to force arbitration by law or even to prevent a strike by law pending an investigation and report—that is to punish by fine or imprisonment the violators of the law. Can we in the present state of public opinion prevent men from entering

into a combination of this kind? Let anyone who thinks that this is possible without a strong change in public opinion, first picture to himself the scene in court when a union official were to be sentenced to fine or imprisonment for promoting a strike. To secure a conviction we must first have borne in upon the public mind the strong belief that a fair and impartial method of settlement was possible, and that a great public calamity had been brought about by the refusal of the accused to resort to this tribunal. When we have established these two points beyond dispute in popular opinion, we shall be ready for a Canadian plan, but not until then. In the celebrated Bucks Stove & Range case, the three union leaders involved, escaped largely by reason of their prominence, their undoubted high character and ability, and the peculiar nature of the dispute in which they were involved. But it was unquestionable that they had violated the law. When the meat packers were accused of entering into a combination to manipulate prices, contrary to the Sherman Act, the government secured an immense amount of evidence which it considered unanswerable. Yet it could not secure a conviction. The trial lasted several months and cost nearly one million dollars. The jury rendered a verdict of not guilty. Aside from the technical difficulty of proving a combination, whether to promote a strike or to manipulate prices, there is a lack of strong, definite, clear-cut opinion as to what is permissible under the rules of the game of business.

It is useless to multiply laws, writs and compulsory processes, until the public has definitely and unmistakably set its face towards the enforcement of the law. A compulsory statute might be praiseworthy as the expression of a pious wish, but it would settle no controversies. During our present attitude of indecision can any one imagine a department of justice or a federal administration which would attempt to enforce such a law without the support of strong public opinion? This applies not only to the railways, but to the state systems of arbitration as well. No prominent association of manufacturers has advocated compulsory settlement. As for the workers, the union heads positively repudiate the idea in unmistakable terms.

In order to maintain the right to strike, the union heads feel that all forms of compulsory arbitration or compulsory postponement of strike must be defeated. Mr. Gompers has said: "Arbi-

tration is only possible when voluntary. It never can be successfully carried out unless the parties to a dispute or controversy are equals or nearly equals in power to protect or defend themselves." During this transition period we must get along without compulsion. We must wait until, through the inconvenience, the loss and the suffering of a great railway strike, we are all convinced—not of the advisability—but of the necessity of a compulsory system.

And now to consider the last of the questions with which we started,—what additions, if any, should be made to our present government plan of settlement? The tentative suggestion offered here is to make nothing compulsory but investigation, and to leave this in the control of the President in interstate disputes, and in the judgment of the state boards of mediation in local cases. But, it will be asked, how would such a simple provision have prevented a general railway strike? Was not an ultimatum delivered to the President that something must be done before Labor Day or traffic would be paralyzed? And was not the Adamson Act passed as the only avenue of escape from this catastrophe? The answer is to be found in certain facts which, for some reason, have never been pressed home upon the public—perhaps because of the distractions of a presidential election.

(a) The unions never demanded the passage of the Adamson Act; they were on the whole rather opposed to any law on the subject.

(b) Their demands were not made on the first of September, but in the preceding spring and were definitely formulated for public consumption as early as May.

(c) At the time of writing, December, there are large numbers of brotherhood members who do not know what the real provisions of the Adamson Law are,—some even think that it limits work to eight hours per day.

(d) Many of those who do understand the act are extremely dissatisfied with its provisions and some even violently opposed to it.

(e) A very considerable proportion of freight trainmen are employed for much longer hours than the public would approve.

If the above is a fair statement of the conditions, it will appear that there was abundant time for an investigation before the passage of the law; that such an investigation would have immediately

turned up certain facts and grievances which would have been remedied in the natural course of events, just as all other unreasonable conditions in railway employment have been remedied when made public or arbitrated; that such a substantial change could have been made in these conditions as to remove all possibility of a strike or of public support for a strike if one had been ordered, and that all real danger of a conflict would have been averted. The proper remedy then was not a compulsory arbitration, nor a compulsory suspension of the right to strike, but a compulsory investigation and public report of facts with a proposed settlement. If the President possessed and would use this authority, the chief cause of railway strikes would be removed.

BOOK DEPARTMENT

MANUFACTURING INDUSTRY

DONALD, W. J. A. *The Canadian Iron and Steel Industry.* Pp. xv, 376. Price, $2.00. Boston: Houghton, Mifflin Company.

A study of the economic history and problems of the Canadian iron and steel industry undertaken with the secondary purpose of throwing light on the relationship between the tariff and the production and growth of the iron and steel industry.

This book, which was given honorable mention in the Hart, Schaffner and Marx's Prize Competition for 1913 is an exhaustive and scholarly work, and the first of its kind in the field. It first takes up the climatic, political and material conditions which characterize, and in the past, have retarded the development of the Canadian industry. The history of the Canadian industry is divided into three periods. First comes the early history prior to 1879, whose outstanding characteristics are fully described and explained; then the period after the adoption of the national policy in 1879 to 1897; and finally the modern period of rapid growth from 1897 to the present time.

As a result of the study of the industry, the conclusion is reached that the tariff has been a negligible factor in the development of the Canadian iron and steel industry.

J. H. W.

DUNBAR, DONALD EARL. *The Tin-Plate Industry.* Pp. 133. Price, $1.00. Boston: Houghton, Mifflin Company.

This history of the tin-plate industry, with special reference to its growth in the United States since 1890, is the first-prize essay in the *Class A* group of the Hart, Schaffner and Marx's Contest of 1914. Particularly interesting and worth while is the comparison between the conditions of production and cost in the United States and Wales. In view of our instinctive conclusion as to the greater cheapness of European labor, it is particularly significant that the wage cost per unit output in the United States and Wales is approximately the same. The author concludes that although the tariff was *one* of the factors responsible for the remarkable growth of our industry, nevertheless, it is not needed now for protection purposes.

J. H. W.

GILBRETH, FRANK B. and GILBRETH, LILLIAN M. *Fatigue Study.* Pp. 159. Price, $1.50. New York: Sturgis and Walton Company, 1916.

This, the latest book from the Gilbreth pens, is an inquiry into the problem of industrial motions from the side of their results upon the human organism. The authors' aim is to determine accurately what fatigue follows the accomplishment of various types of work, to suggest methods of eliminating needless fatigue

or mitigating that which is necessary, and to arouse an enthusiasm among managers, teachers, factory workers and the public that will reduce the unnecessary waste of human energy.

Fatigue Study is a corollary to F. B. Gilbreth's earlier *Motion Study*, a book that was extremely valuable as a pioneer but suffered the crudities of a trail blazer; this second work dealing with one phase of motion study is far less specialized in subject matter and in general is a much more finished production. Nevertheless, we would be rash to predict for it such widespread attention as the predecessor received for it does not present to the world such a new contribution to thought.

M. K.

MONEY, BANKING AND FINANCE

WILLIS, H. PARKER. *American Banking*. Pp. xi, 361. Price, $2.00. Chicago: La Salle Extension University, 1916.

An earlier volume by Dr. Willis on a similar subject, *The Federal Reserve*, suffers in comparison with the present book, which is more valuable by reason of its greater scope. The former was intended for general reading, the latter as a text. While not so divided by the author, the chapters seem to group themselves in these four parts: an explanation of the elements of banking (12 chapters); a history of the relation of the government to banking (3 chapters); a description of the operation of the Federal Reserve System (4 chapters); a comparison of American and foreign banking systems and an outline of American banking problems (2 chapters). Of these groups the first and third are superior as regards content.

In certain respects the volume is inadequate. It is a physical impossibility to describe adequately the banking systems of England, France, Germany and Canada in twenty pages. The chapter on foreign exchange, for further example, is incomplete. It does not dwell at any length on the various factors affecting the rate of exchange, arbitrage in exchange, and other interesting phases of the subject. It does treat, however, of the effect of the Federal Reserve Act on this department of the banking business. Conditions under the National Bank Act are very briefly described, but this is justifiable in view of the present interest in the new system. In contrast, certain chapters are excellent, such as those on bank loans, bank deposits, bank notes, capital and reserves, the bank statement, and particularly the chapters on the Federal Reserve Act.

The principle defect of the book is lack of comprehensiveness. Its outstanding excellence is simplicity. The latter may serve to account somewhat for the former. Being designed to serve as a text in correspondence school work, necessarily it cannot go into intricate details requiring extensive treatment. While other more comprehensive texts may be found it is doubtful whether there is any containing a more readable description of the present banking system. The author's connection with the passage of the Federal Reserve Act lends additional interest to his explanations of the purposes of various provisions of the act.

ROBERT RIEGEL.

University of Pennsylvania.

SOCIOLOGY AND SOCIAL PROBLEMS

EVANS, MAURICE S. *Black and White in the Southern States.* Pp. xii, 229. Price, $2.25. New York: Longmans, Green and Company.

This is a discussion of the American race problem by an English colonist of South Africa. The author published a similar volume in 1912 on race conditions in his home colony.

Following some preliminary passages describing the South and outlining its history, the heart of the book opens in Chapter VIII. The economic position of the Negro, the economic and social fear of the whites, their belief in the Negro's inferiority and their prejudice and determination to keep the Negro "in his place" are presented.

In two chapters following, the author discusses the thoughts, feelings and achievements of the Negro on the basis of racial mixture or purity, giving credit for greater practical efficiency to the mulatto on account of his white ancestry. He seems to ignore the better economic and other chances of the mulattoes before slavery and since. The discussion of the Negro church, lodge and education in Chapters XI, XII, and XIII hardly brings out anything beyond the ordinary. The significance of the Hampton-Tuskegee movement is well appraised.

The three chapters on Grievances, the Jim Crow Car, Political Rights and Wrongs, and Separation in Schools and Places of Public Resort seem to give the stamp of approval to existing conditions. From what the author saw, he believed railway accommodations equal, leaving out of account available facts and testimony of others to the contrary. On Negro disfranchisement, he points out that the Negro, although "voteless and voiceless in political affairs," is the one force that makes Southern politics what they are, "with death to discussion and to difference of political opinion." In Chapters XVIII to XXI, the lack of justice in the courts is strongly disapproved; personal injustice to individuals and lynching are terribly arraigned by a searching analysis.

In contrasting the North, where the Negro is pictured as a "voter without a livelihood," and the South, where he has "a livelihood without a vote" the writer fails properly to appraise the potential value of the vote in protecting workers.

The vital point of the book, however, is summed up in Chapters XXV and XXVII about the migration of the Negro population away from the land and the pointing out to the Negro and his friends the "great opportunity" now at hand for the acquisition of land while it is abundant and cheap. Also, he advises a clinching of the hold upon skilled and unskilled occupations while competition is mild.

The bibliography is somewhat too brief for a book which attempts to cover the whole question in the southern states. From the angle of the reviewer, the opinions on the economic situation are sound and valuable, especially coming as they do from South Africa where black men are severely restricted. The criticisms about the lack of justice and fair play are well taken.

The approval of other civil and political conditions are apparently drawn upon a background theory of statecraft belonging to South Africa rather than from the underlying ideals of democracy which America aims to realize.

GEORGE EDMUND HAYNES.

Fisk University.

KIRKPATRICK, EDWIN A. *Fundamentals of Sociology*. Pp. x, 291. Price, $1.25. Boston: Houghton, Mifflin Company, 1916.

The author is primarily a psychologist and has made contributions to the literature of psychology with special reference to education. He has become convinced that "Sociology may be of as much importance to education as psychology."

The materials which the book contains are intelligently conceived and well presented. It classifies social activities according to the needs they serve, namely, economic, protective, recreative, cultural, social, moral and religious, and educational. The space devoted to activities which serve educational needs lacks only two pages of making one fourth of the book. Three chapters are devoted to community studies. Each chapter is followed by skillful questions.

The book is intended primarily as a brief text for classes. "No attempt has been made at completeness of treatment of any topic." The work does not go deep into explanation. It treats of overt social activities with little reference to the sentiments and ideas that underlie them. It seems deliberately to pass over this deeper aspect of the subject. There can be no explanation of the overt activities of society, and of the changes they undergo in social evolution, without study of the modes of variation in those prevalent sentiments and ideas of which the overt activities are an expression, and of those types of causation by which prevalent sentiments and ideas are moulded. It is such knowledge alone that gives a basis for social control, and it is such knowledge that constitutes the chief contribution of sociology to education.

E. C. H.

NASMYTH, GEORGE. *Social Progress and the Darwinian Theory*. Pp. xxiii, 417. Price, $1.50. New York: G. P. Putnam's Sons, 1916.

To all thoughtful men and women who in this day of world conflict are carefully examining their philosophy of life, this volume is to be heartily commended. Only those familiar with European literature can realize to what an extent the belief that the survival of the fittest among nations as well as among animals is shown by warfare underlies the present struggle. Even less generally known is the fact that some writers, notably the Russian Novicov, have for years opposed this belief and have sought to show that it is contradictory to the teachings of the great naturalists. The present writer has done a great public service by writing this volume which is largely based upon the work of Novicov. The introduction is contributed by Norman Angell.

The book is divided into three main divisions: The Philosophy of Force; Mutual Aid as a Factor of Social Progress; Justice as a Prime Social Need. In the first the genesis of the present reliance on a philosophy of force is shown and the attempt is made to show that it does not correspond with the facts and is moreover a perversion of the teachings of such men as Darwin and Wallace. In the second it is sought to show the actual ideas of the naturalists and to demonstrate that the world of nature should be that which man should conquer via the road of coöperation. In the third emphasis is laid upon moral law and justice

as the basis of relations between states as well as individuals to the end that there may be a world federation and a change "from anarchy to a League of Peace."

"Since there is no possible way of stopping the increase of armaments except by international agreement to surrender the right of conquest and aggression, the pressure of the burden of armaments themselves, which caused the Russian Czar to call the First Hague Conference, will lead inevitably to the next step of world organization, the formation of a League of Peace. From this step, once taken, the road leads straight on to the realization of the goal of evolution and the highest aspirations of the human soul, the perfection of the species, and the life more abundant for the individual through the establishment of world federation under the reign of Justice."

The reviewer is not at all convinced that the program as outlined is not in reality an attempt to substitute one half truth for another. It is, however, certain that the first half truth has been greatly overemphasized and the second greatly underestimated. It is well then to have the claims of coöperation strongly presented, and this the writer has done.

CARL KELSEY.

University of Pennsylvania.

OSBORNE, THOMAS MOTT. *Society and Prisons.* Pp. 246. Price, $1.35. New Haven: Yale University Press, 1916.

The fundamental scheme of this somewhat informal and popular treatise is to contrast the results obtained by the traditional methods of punishing criminals and the results obtained by the aid of the Mutual Welfare League—an organization of the prisoners in the prisons of the state of New York with certain powers of initiative, self-control and discipline under the ultimate supervision of the prison authorities. The Mutual Welfare League had its immediate origin in Mr. Osborne's self-imposed imprisonment at Auburn prison where he spent a week as an ordinary prisoner, enduring all the hardships of prison life and discipline. In its present form the League embodies some of the results of Mr. Osborne's experience as warden of Sing Sing prison.

The author has no difficulty in showing the cruelty and inconsistency and disastrous social results of the old methods of prison discipline and the absurdities of some of the old theories regarding criminality and the criminal type. Many of the results under the old system were undoutedly vicious. While some will look doubtfully upon the system of limited self-government as a method of prison discipline yet there is convincing evidence that progressive steps are being formulated in Mr. Osborne's scheme that is being inaugurated in the prisons of the state of New York.

As the author describes the inhumanities and monstrosities of prison discipline and society's method for determining criminals it seems inconceivable that such practices were—and still are, in some instances—permitted in an enlightened age. Mr. Osborne's book should aid in the hastening of the newer and better day in the treatment of so-called criminals.

J. G. S.

PARMELEE, MAURICE. *Poverty and Social Progress.* Pp. xv, 477. Price, $1.75. New York: The Macmillan Company, 1916.

This new book is indeed welcome. It is the most satisfactory work attempting to deal with the entire field of poverty, dependency, and philanthropy which has appeared in recent years. The author has aimed to make the book suitable for guidance in the general problems of citizenship and for "use as a textbook for college and university courses on charities, poverty, pauperism, dependency, social pathology, etc."

Several features differentiate this work from previous works dealing with the same field or closely allied fields. One of these is the fuller consideration of the newer facts of biology and psychology in the treatment of poverty causation. While the development of knowledge in these fields is not complete enough to fix definite and standardized relationships yet the connection between them and poverty is discussed in a suggestive way. Emphasis is given to the social and economic causes of poverty. Poverty is shown to be a social abnormality, an economic defect which has some of its deepest roots in the nature of the social organization. The whole subject of causation is dealt with from the viewpoint of its fundamental social and economic elements. The social and economic measures for the prevention of poverty are also emphasized. Chapters are given over to the discussion of the problem of distribution, dealing with such topics as the raising of wages, the regulation of the labor supply, the re-distribution of income from the ownership of property, and the productiveness of society. The factors of causation and the methods of prevention are the two primary points of attack in the solution of the problem of poverty. The author's concept of social progress (which gives life and spirit to a working program dealing with poverty) is "the progress of society towards a democratic organization inspired by a humanitarian ideal."

There are several ways in which the excellence of the book might have been improved. The basis of selecting the bibliography is not clearly defined. Much good material regarding the facts and conditions of poverty is left out and other material more remotely relating to the subject of poverty is inserted. In its present form the bibliography is not classified according to the nature of the material and as a result it is not so largely usable or suggestive. There is some doubt about the proportion given to some phases of the subject. Comparatively little space is devoted to the present methods of dealing with poverty and the dependent classes. It is a question whether these should not have been more fully discussed since they are the usual avenue of approach whereby interest is developed in the more fundamental phases of causes and prevention. The book is not primarily adapted for beginners in the field requiring too much background in the social sciences. At times the terminology could have been simplified or modified to advantage. The English terms regarding feeble-mindedness are misleading for they differ in meaning somewhat from the terms in American usage.

Such an able and scholarly treatment of the subject of poverty in its relation to the life and ideals of our time is bound to be a guide and stimulus to the students and workers along social and philanthropic lines. It suggests new and

undeveloped phases of study and research which must be explored if the problem of poverty is to be met and scientifically solved.

JAMES G. STEVENS.

University of Illinois.

WORK, MONROE (Ed.). *Negro Year Book, 1916-17.* Price, 35 cents. Tuskegee Institute: The Negro Year Book Publishing Company, 1916.

INTERNATIONAL QUESTIONS

LADD, WILLIAM. *An Essay on a Congress of Nations for the Adjustment of International Disputes without Resort to Arms.* (Reprinted from the original edition of 1840 with an introduction by James Brown Scott.) Pp. 1, 162. Price, $1.00. New York: Oxford University Press, 1916.

MACH, E. R. O. VON (Ed.). *Official Diplomatic Documents relating to the Outbreak of the European War.* Price, $6.00. New York: The Macmillan Company, 1916.

During the last two years there has been issued a series of publications in which the official documents relating to the Great War have been reprinted. The American Association for International Conciliation first published in separate reprint form the most important of these documents. Then came the excellent work of Professor E. C. Stowell on *The Diplomacy of the War of 1914,* in the first volume of which many of these documents were printed. In the present work we have the most complete compilation heretofore attempted. This volume is divided into three parts. The first contains the despatches sent and received at the various foreign offices of the countries involved in the war. In Part II there is reprinted the Austro-Hungarian Red Book, the French Yellow Book, the German White Book and the British Blue Book. Part III contains in systematic arrangement a series of documents which will be particularly useful to the student of international relations and which are not accessible to the average reader, such as, for instance, the so-called "Brussels' Documents," found at the time of the capture of that city, and interpreted by the German government to indicate a secret understanding between Belgium and Great Britain with reference to the protection of Belgian territory.

In a voluminous appendix the author has arranged photographic reproductions of a large number of official documents, of which the most important are the notes exchanged between the diplomatic representatives of the teutonic powers and their respective foreign offices.

In his preface the author mentions the fact that he has contented himself with "the hard and slow work of collating the despatches and bringing order out of chaos." He intimates that at some future time he will undertake the discussion of their significance, but that the present work is intended exclusively as a source book for students.

L. S. R.

QUESADA, ERNESTO. *Nuevo Panamericanismo y el Congreso Cientifico de Washington.* Pp. 364. Buenos Aires: Talleres Gráficos del Ministerio de Agricultura de la Nación, 1916.

In a volume of 364 pages Dr. Ernesto Quesada, Chairman of the Argentine Delegation to the Pan-American Scientific Congress, gives an illuminating account not only of the work of the congress but of the larger Pan-American problems involved. He shows clearly the great international service performed by such congresses, particularly in cultivating closer cultural ties between the republics of America. It is to be hoped that in each country of the American Continent a publication as helpful as that of Dr. Quesada will be issued. The author has performed a real international service in placing before his countrymen this excellent presentation of the significance of the work of the congress.

L. S. R.

SCOTT, JAMES BROWN. *An International Court of Justice.* Pp. vii, 108. Price, $1.00. New York: Oxford University Press, 1916.

SCOTT, JAMES BROWN. *The Status of the International Court of Justice.* Pp. iv, 93. Price, $1.00. New York: Oxford University Press, 1916.

THE WAR

BURNS, C. DELISLE. *The Morality of Nations.* Pp. xii, 254. Price, $1.50. New York: G. P. Putnam's Sons, 1916.

MILLIOUD, MAURICE. *The Ruling Caste and Frenzied Trade in Germany.* Pp. 159. Price, $1.25. Boston: Houghton, Mifflin Company, 1916.

HOWE, FREDERIC C. *Why War?* Pp. xvi, 366. Price, $1.50. New York: Charles Scribner's Sons, 1916.

SHEIP, STANLEY S. *Handbook of the European War.* Volume I. Pp. vii, 344. Price, $1.00. White Plains, New York: The H. W. Wilson Company.

BINGHAM, ALFRED (Ed.). *Handbook of the European War.* Volume II. Pp. xi, 303. Price, $1.00. New York: The H. W. Wilson Company, 1916.

KREHBIEL, EDWARD. *Nationalism, War and Society.* Pp. xxxv, 276. Price, $1.50. New York: The Macmillan Company, 1916.

BREWER, DANIEL CHAUNCEY. *Rights and Duties of Neutrals.* Pp. ix, 260. Price, $1.25. New York: G. P. Putnam's Sons, 1916.

Professor Millioud holds the chair of Sociology in the University of Lausanne and is therefore a citizen of a neutral country, and Sir Frederick Pollock, in an introductory note, tells us we should keep in mind that the work is the judgment of a neutral. A careful reading, however, will hardly confirm such a conclusion. While it is an important work, original in its conception and vigorous in argument, one cannot but feel that the author, though logical enough in his conclusions, has reasoned from premises that are not always substantiated. He assumes without argument that Germany started the war and finds four reasons for her hasty action: the first reason is that given by Germany herself, that she was the victim

of a plot; the second explanation, the one accepted in England and in part in the United States, rests upon the theory that might makes right; third, that Germany fought to get rid of the strangling rope with which the other powers were binding her; but greatest of all the causes was Germany's attempted economic conquest of the world. The whole social order was so bound up in this conquest, which had been accumulating force for some time and which carried with it the seed of its own destruction, that the German people were facing national bankruptcy and, to avert the crisis, war was declared. In the opinion of the reviewer the work is open to two fundamental criticisms. In the first place, the economic development of Germany at home and abroad is described as something wholly sinister and underhanded and unlike that of any other nation; in the second place, the author fails to show just how a war, even if successful, would, in the opinion of Germany, rehabilitate the waning fortunes of the ruling class, which in his opinion does not consist merely of a chosen few but includes the great middle class as well.

A much saner view is expressed in Mr. Howe's work. No one country is alone responsible for the war. The real explanation is rather in the diplomatic victories and resentments over Morocco and Turkey, in the aggressions of British, French and German financiers and concession seekers, and in the exploitation of weaker peoples that have fallen under the dominion of Great Britain, France and Germany during the last thirty years. Mr. Howe's book is entirely free from prejudice, special pleading and hypocrisy; he accepts neither the doctrine of German "Kultur" nor of British "morality"; capital and the exploitation of weaker states are the underlying motives in the present war.

Out of the mass of literature which the war has produced, Mr. Sheip has constructed a valuable handbook by sifting the most representative opinions concerning the great conflict and presenting them in extract and excerpt form. A historical summary of each nation engaged in the war precedes the opinions quoted and gives a background to the discussions. This volume presents the most important facts leading to the war, while the second volume of the series, edited by Mr. Bingham, follows the general plan of the first but deals with events which concern themselves more particularly with the war itself.

Mr. Kriebel's book might also properly be called a handbook for, except the thirty-five pages of introduction by Norman Angell, containing his well known argument, the work sets forth the views of the most prominent writers on nationalism, force, war, militarism and pacificism. These are arranged in analytical outline form and are supplemented by brief statements by the author. Numerous references are given at the end of each chapter and statistics and diagrams add to the usefulness of the book as a guide and work of reference upon the subject indicated in the title.

All of the above mentioned volumes deal primarily with the nations at war. Mr. Brewer, on the other hand, considers the case of the neutrals. The doctrine of blockade and contraband, questions dealing with the freedom of the seas and measures and conditions calculated to affect favorably or unfavorably the future of the United States are the principal subjects discussed. It is a brief but clear and impartial statement of the rights of neutrals as affected by the present war.

KARL F. GEISER.

Oberlin College.

SEYMOUR, CHARLES. *The Diplomatic Background of the War. 1870–1914.* Pp. xv, 311. Price, $2.00. New Haven: Yale University Press, 1916.

The study of modern history has received from the present war a stimulus which must give it henceforth a more permanent position in the curriculum of universities and colleges. In the present volume Mr. Seymour enters a comparatively new field, occupied hitherto by a few excellent general histories, such as those of Phillips, Rose, Andrews, and Hazen, and by biographies and special treatises not generally accessible. Beginning with a study of Bismarck's creation of the Triple Alliance and of the Dual Alliance which counterbalanced it, the author passes to a discussion of the development of German world policy both in respect to its economic and its moral factors. This is followed by a consideration of British foreign policy, and of the diplomatic revolution by which Britain put aside her policy of opposition to France and Russia in favor of coöperation. The conflict of the two alliances is next described, and the closing chapters deal with the Balkan wars and the crisis of 1914. In addition to a brief bibliography arranged for each individual chapter the author gives frequent references in footnotes, though for the most part to secondary sources. It is scarcely necessary to say that there is still room for a more exhaustive work based upon original documentary evidence.

C. G. F.

TROTTER, W. *Instincts of the Herd in Peace and War.* Pp. 213. Price, $1.25. New York: The Macmillan Company, 1916.

Many things indicate that man is essentially a gregarious animal. "1. He is intolerant and fearful of solitude, mental or physical. . . . 2. He is more sensitive to the voice of the herd than to any other influence. . . . 3. He is subject to the passions of the pack in his mob violence and the passions of the herds in his panics. . . . 4. He is remarkably susceptible to leadership. . . . 5. His relations with his fellows are dependent upon the recognition of him as a member of the herd."

Recognizing that this gregarious instinct is as powerful today as ever we may see that man can develop three types of society. He may imitate the "protective gregariousness of the sheep and the ox"; he may model his society after the "aggressive gregariousness of the wolf and the dog" or he may follow the pattern of "complex social structure of the bee and the ant, which we may call socialized gregariousness."

The present European war is not due to any necessity of contest between nations. It is a mark of the breakdown of standards or rather of the failure to realize the necessity for social ideals. It was the great merit of Germany that she saw the enormous possibilities of a conscious social order. Unfortunately, her traditions and her division into social classes led her to adopt the model of the wolf and to accept the philosophy that progress involved dominance over other types. This ideal of human society, the author thinks, must be replaced by the socialized gregariousness. Society, in other words, has become a great and new biological unit which must replace the old individualism just as the multi-celled organisms achieved a higher position than was possible to single-celled forms.

The original thesis was written and published long before the war. The latter part is added as a result of the conflict which all want to understand. The thesis is developed in most interesting fashion and will repay careful consideration. To me it has proven one of the most attractive of recent European books.

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University of Pennsylvania.

WAXWEILER, EMILE. *Belgium and the Great Powers.* Pp. xi, 186. Price, $1.00. New York: G. P. Putnam's Sons, 1916.

GUYOT, YVES. *Les Causes et les Conséquences de la Guerre.* Pp. xxv, 422. Price, 3 fr. 50. Paris: Librairie Félix Alcan, 1916.

ANDRÁSSY, JULIUS COUNT VON. (Trans. by Ernest J. Euphrat.) *Whose Sin is the World War?* Pp. 154. New York: Era Publishing House, (for sale by Baker.)

FRIED, ALFRED H. *The Restoration of Europe.* Pp. xiv, 157. Price, $1.00. New York: The Macmillan Company, 1916.

Mr. Waxweiler's book is a continuation of the defence set forth in his work of a year ago—"Belgium, Neutral and Loyal" (noticed in the March 1916 number of *The Annals*).

The two volumes next in order, if read together, form a combination which will give the reader a better estimate of the causes of the war than either volume would if taken by itself, for each is written from a partisan viewpoint. The first edition of M. Guyot's work appeared in July, 1915. This, the second edition, issued nine months later, contains no important changes. The political, economic and historical causes of the war are set forth with a clearness characteristic of the writer. It must be said, however, that while the author aims to give the facts without prejudice, the conclusions of the work do not leave the impression that his aim has been accomplished. He arrays his facts with a bias and with an evident attempt to write Germany down at every point. His remedy for a permanent peace is nothing short of "a political and moral dissolution" of the German and Austro-Hungarian empires. Germany rather than Austria is, in his opinion, to blame for the war. Count Andrássy, on the other hand, accepts in behalf of Austria full responsibility for the part his country has taken in the war, and while largely excusing France for participation in the struggle, and even justifying English interference in a measure, he finds the chief cause in Russia's Balkan ambitions. In view of Russia's attitude Austro-Hungary could not do otherwise than defend herself against the inevitable disintegration planned by her enemies. Coming from a partisan, it is a very fair account written in a spirit of candor and moderation.

If Dr. Fried had not received the Nobel prize in 1911, this work alone should entitle him to that distinction, for it is by far the best work on the reorganization of Europe after the war that has thus far appeared. His interest in international questions has been life-long and he approaches the subject from the standpoint of one who thoroughly understands the problems involved. The present war is due to international anarchy and is the logical outcome of the kind of "peace" which preceded it. All the peace treaties of the past have contained the germs of the next war and a peace that is permanent must be based upon the economic

interests of all nations. Europe organized upon the principle of the Pan-American Union comes, in his opinion, nearest to meeting these conditions.

KARL F. GEISER.

Oberlin College.

MISCELLANEOUS

FORD, HENRY JONES. *Woodrow Wilson.* Pp. 332. Price, $1.50. New York: D. Appleton and Company, 1916.

HERBERTSON, A. J. and HOWARTH, O. J. *The Oxford Survey of the British Empire.* 6 vols. Pp. lxiv, 2129. Price, $21.75. New York: Oxford University Press.

The student in search of information on present-day economic and political conditions in foreign countries often finds it difficult to secure, without a great amount of reading, material that deals with the underlying facts of the geography, resources, industries and peoples so necessary for a proper interpretation of a country. Historical surveys there are in plenty, but comprehensive and authoritative descriptions of the lands themselves and their economic resources are conspicuous by their rarity. These six volumes supply such descriptions for all the lands that make up the British Empire. In the words of the preface their object is "to furnish a survey of the Empire and its constituent parts in their geographical and allied aspects, together with their economic, administrative and social conditions, at the present time." Five of the volumes deal with British possessions in five continents: Vol. I, The British Isles and Mediterranean possessions; Vol. II, India and other Asiatic possessions; Vol. III, African territories; Vol. IV, Canada, Newfoundland and other New World Possessions; Vol. V, Australia, New Zealand, the Pacific Islands and Antarctic. The sixth volume, entitled a General Survey, deals with such topics as British Colonial Administration, Imperial Defense, Problems of Health and Acclimatization, Imperial Commerce and Communications.

Most of the material in the volumes is given to the major divisions of the Empire—The British Isles themselves, India, Canada, the Union of South Africa and Australia. Each division is a compilation of chapters by different authors of recognized authority on the topic treated. As an example of the method of treatment, the section on South Africa may be taken. It contains a chapter on Physical Geography and Geology of the Union of South Africa; one on Climate by the Government Meteorologist; others by competent writers on Vegetation and Fauna; Agriculture; Peoples; Government and Finance, etc. Each of the other divisions is treated under the same general outline. The smaller countries of the Empire are covered by single chapters, such as, for example, Labrador by W. T. Grenfell. At the end of each chapter is a short bibliography, and at the end of each volume tables of statistics—geographical, commercial, social and financial—and a gazetteer of towns. Scattered through the volumes are several finely executed colored maps, both physical and political, and a large number of diagrams and maps in black and white. These, together with many half-tone plates from photographs, greatly augment the value of the text.

The editors have succeeded to an unusual degree in overcoming the defects common to compilations of this kind. Repetitions occur, as is probably inevitable where many writers contribute to a single work; likewise relationships that should be drawn between the facts of different chapters are not stated and these gaps must be bridged over by the reader, but, in general, unity of treatment has been secured in spite of diversity of authors. The geographical viewpoint is consistently maintained; economic responses to physical environment are emphasized, but other determining factors are not overlooked; present conditions rather than past history are presented. As might be expected, the quality of the chapters vary, but taken as a whole, this series is the best description of the physical, economic and social conditions of the various parts of the British Empire that we have.

G. B. ROORBACH.

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HOPKINS, J. CASTELL (Ed.). *The Canadian Annual Review, 1915.* Pp. 880. Price, $4.00. Toronto: The Annual Review Publishing Company, 1916.

As might be expected, this issue is given over largely to the European war. The first four hundred pages have to do with such matters as the position of the various belligerents during 1915, a chronology of the war, Canada's responses to war demands—her contribution in men, money and achievements. Then follow an appraisal of the position of the United States during the progress of the war and a record of the diplomatic relations between the United States and Great Britain.

Without imputing to the first part of the *Review* a lack of good faith or inaccuracies one may still suggest the advisability of continually applying the ordinary tests of historical criticism.

The last four hundred pages of the book treat of the outstanding issues and problems in each of the various provinces of Canada during 1915. Such data regarding our northern neighbor are not to be passed over lightly by anyone wishing to keep fully posted on what was doing in 1915.

C. H. C.

OLCOTT, CHARLES S. *The Life of William McKinley.* 2 vols. Pp. xxiv, 818. Price, $5.00. Boston: Houghton, Mifflin Company, 1916.

The task of writing a biography of President McKinley was fortunately undertaken by an author of experience and literary ability. Having been connected with the publishing house of Houghton, Mifflin and Company for twenty-five years, Mr. Olcott brought to his work good standards and has succeeded in living up to those standards in presenting the life and work of William McKinley.

About three-eighths of the book deals with Mr. McKinley's early life and his work up to the time of becoming president, the remaining five-eighths of the work are devoted to a discussion of the tasks that confronted President McKinley and the spirit and manner with which he dealt with the problems he had to settle. The author is thoroughly in sympathy with Mr. McKinley's views on the tariff and upon all other public questions with the solution of which President McKinley

was concerned. This tends to deprive the work of a critical character and to make it almost without exception laudatory.

Mr. Olcott very properly gives a large amount of space to the discussion of events that preceded the Spanish-American War and to a consideration of President McKinley's conduct of the war. Mr. McKinley is entitled to great credit for the determination he manifested in holding Congress back for months from declaring war on Spain, and he is rightly entitled to credit for the manner in which he directed the peace negotiations. He has placed the country under great obligations for the way in which he organized the government of the Philippine Islands. Mr. McKinley, Secretary Root and Governor-General Taft started the American government in the Philippines in a manner that is entirely creditable to the United States. Among the other subjects considered by Mr. Olcott is the policy of the United States towards China during and after the Boxer trouble. The policy pursued by President McKinley and Secretary Hay was as successful as it was magnanimous and commendable.

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THE PURPOSES AND IDEALS OF THE MEXICAN REVOLUTION

Addresses delivered at a joint session of the American Academy of Political and Social Science and the Pennsylvania Arbitration and Peace Society, held on Friday evening, November 10, 1916

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With concluding remarks by

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FOREWORD

By L. S. Rowe, Ph.D., LL.D.,

President of the Academy

The addresses printed herewith were delivered at a joint meeting of the American Academy of Political and Social Science and the Pennsylvania Arbitration and Peace Society on the evening of Friday, November 10, 1916. The importance of the occasion, as well as the significance of the addresses, make it desirable to place them in the hands of every member of the Academy. The American public has never had an opportunity to form a judgment of the purposes of the Mexican Revolution. It has seemed important to the officers of the Academy that these purposes should be presented by the men who have taken not only a leading part in the revolutionary movement but who are now actively engaged in an endeavor to work out these purposes in concrete and practical form.

THE MEXICAN REVOLUTION—ITS CAUSES, PURPOSES AND RESULTS

By Hon. Luis Cabrera,

Minister of Finance of Mexico, and Chairman of the Mexican Section of the American and Mexican Joint Commission.

Whatever I might say in token of gratitude, for the honor conferred upon us by the American Academy of Political and Social Science and the Pennsylvania Arbitration and Peace Society, would be little in view of the great importance of the special invitation extended to us to attend this special session.

We consider it a high honor for our country more than for ourselves, and we are glad of the opportunity to make ourselves heard before a scientific and scholarly public, free from prejudice and interested in the Mexican situation. Owing to their special nature, the American Academy of Political and Social Science as well as the Pennsylvania Arbitration and Peace Society are institutions of scientific and humanitarian character. They have at heart only the investigation and the good of humanity, and in that spirit they study the Mexican situation.

Literature on Mexico which I have found in the United States is of an entirely superficial character, such as is contained in newspaper reports or interviews. Consequently, it is tinged with shallowness, based on rumors, and intended for telegraphic transmission. In many cases those reports have a political purpose and then the facts are not only inaccurate, but are set forth with the intention of moulding public opinion, or that of the United States Government, or of some political party. In many other cases the literature of Mexico known in the United States, is simply imaginative, like the novel or the moving picture exhibition. I do not know of any book, pamphlet or publication on the Mexican situation which has been prepared with a scientific purpose.

The sources of information have been either newspaper correspondents who discard 99 per cent of the important facts because they cannot extract from them a sensational headline for their papers, or foreigners who have interests in Mexico, and who look at the situation merely from the viewpoint of their own businesses.

Other founts of information are either Mexicans who reside abroad and whose views are affected by partisan bias, or politicians representing some special faction or chieftain. All such sources must necessarily be unreliable. Not one of them springs from the purpose of ascertaining the true conditions of Mexico, and the public who reads them desires to find therein the corroboration of its own opinions rather than precise data.

The mission which has brought us to the United States being of a diplomatic nature, prevents us from speaking with absolute liberty, and our connection with the Constitutionalist Government might cause our opinions to be viewed as decidedly partial. As regards myself, without losing sight of the fact that I belong to the Government of Mr. Carranza and am taking part in a diplomatic mission, I would like to say some words on the Mexican situation, appraising it from a purely scientific viewpoint.

Therefore I shall not speak either as an official or as a politician or as a diplomat, but only as a member of the American Academy of Political and Social Science who desires to present the general features of a scientific interpretation of the facts which have been agitating Mexico during the past six years.

The Chaos

The general impression regarding the Mexican situation, not only abroad but in Mexico, is that it is but chaos. The causes put forth by each Government, each chief, each conspirator, each politician or each writer, as the motives of the Mexican Revolution, are so numerous and conflicting that it is almost impossible to understand them. Some are general, others concrete, others immediate, and still others remote in their influence.

The simplest conclusion which indolent intelligence or impatient characters have extracted from this galaxy of motives, is that the Mexican people have an incorrigible tendency towards disorder and war, and Mexico is consequently the "sick man," whose cure is hopeless. The number of presidents that Mexico has had in a century, is nearly as large as the numbers of leaders, generals or chieftain who in the past six years have assumed the title of legitimate governments of Mexico. All possible forms of administration have tried to rule Mexico, ranking from brutally military governments, without organization of any kind, such as those of Zapata or Villa,

up to a Government of Democratic appearance, but headless, as that proceeding from the Aguascalientes Convention.

Foreign countries know of Mexico only what they see in the press headlines, and those tell merely of bloody deeds, battles, assaults, the blowing up of trains, massacres, shootings, imprisonments, exiles, etc. Judging from this kind of information, the situation in Mexico is a complete chaos. Neither the American people, nor the men who might be supposed to appraise the situation, can do so for lack of general lines of interpretation of those facts.

The student or the scientist who would like to understand and follow step by step the phenomena produced in the chemist's glass, or in the receptacle of bacteriological cultures, or in the crucible of the metallurgist; or the botanist who would like to follow minutely the development of the seed or of the grass, would find himself guideless to do so. Neither chemical, biological, nor sociological phenomena can be studied through direct observation of the elements at the time in which processes of transformation are taking place. It becomes necessary to know the nature of those elements, to observe the previous condition of them, and subsequently the phenomena materialized therewith.

To understand sociological phenomena, we need above all a general interpretation of a whole series of facts and of the evolving process; not a concrete explanation of each one of the facts as they take place. I shall endeavor to make such a scientific interpretation of the Mexican situation.

Geographical Data

Geographically, Mexico is a high triangular plateau, having its vertex towards the south and its base towards the north, comprised between two mountain chains, of which one runs parallel to the Gulf of Mexico and the other to the Pacific Ocean. This high plateau is dry and bare in its northern part, and has been chiefly devoted to cattle raising. In the southern part it is less dry and more fertile, and this southern portion, properly called the central plateau, is the cereal region.

The Gulf slope, damp and hot, is rich for tropical agriculture and gifted with extensive oil fields. The Pacific slope, dry and hot, but well irrigated by our mountains, will become an important

agricultural region. Yucatan, a stony desert, which has been able to produce only hemp, is out of the main body of Mexico, like Lower California. The mountain chains running parallel to the Gulf and to the Pacific, and which interlock in order to form the high Central Plateau, are not merely spurs, but comprise vast regions, constitute the extensive mountain portion of Mexico, and are the mining region.

For a long time Mexico was considered to be a country of marvelous wealth. Afterwards it was believed that Mexico, on the contrary, was a very poor country. The truth is that Mexico possesses great wealth, unexploited, and needing large investments of capital and exceeding energy and skill to develop it.

Population

From the point of view of population, Mexico is as little known, as from the geographical. One speaks of the Mexican *people* and of the characteristics of such people, without taking into consideration that the Mexican people, or the Mexican race is not a well defined group, but an agglomeration which has been constantly changing during the past four hundred years, and is still in the process of formation. Before the Spanish conquest, hundreds of indigenous races existed, of such distinct and opposite characteristics, that it would be difficult to find another country in the world possessing such a number of different races. It is for facility's sake that we speak of the "Mexican Indian," instead of speaking of the hundred of indigenous races of Mexico.

After the Spanish conquest the indigenous population became enslaved. Later, through the efforts of the Spanish friars to protect the aboriginal races of Mexico, the Indians ceased being slaves, only to fall into a condition of legal incapacity. Subsequent to the Conquest a mixed or mestizos population began to appear, and it is still continuing and modifying its development day by day. In Mexico there is thus not a mixed population, properly speaking, with characteristics different from those of the Indian, or different from those of the white. We have a varying mixed population, which in certain strata are very near to the Indian, and in others cannot be distinguished from the white. For the rest, the ease with which whites mix with mestizos, and the latter with Indians, produces the fact that in Mexico the race question properly speaking

does not exist. There is merely a question of education, for as soon as the Indian has been educated, he actually takes his rank by the side of the mestizo.

The population problem consists in unifying the mixed race by means of education and intercrossing with the Indian race and in striving to secure the constant dissolving of the immigrant white races into the mixed race. This problem does not present difficulties as regards the intercrossing of the Indian race with the mixed race, but it is very serious as regards dissolving the white immigrants. The white immigration of Mexico as regards numbers, can be classified in the following order: Spanish, North American, French, Italian, English and German.

Of the white immigrants to Mexico the Spaniard nearly always blends with the native, so that after a generation it may be said that all the Spaniards become Mexicans. We may say the same thing of the Italian and immigrants of Semitic origin: the Arabians, Armenians, etc. After the Spaniard and the Italian, the German assimilates best, and becomes Mexican in two generations. The German frequently marries a Mexican woman and settles permanently in the country. The French come after the German, as regarding facility of blending.

The American immigrant very seldom becomes Mexican. The very small percentage of American immigrants who settle permanently in Mexico or who marry Mexican women, preserve American citizenship, educate their children abroad, and it may be said that 95 per cent of American immigrants remain always American, socially, politically, and ethnically. The English immigrant rarely becomes Mexican. Hardly ever does he marry a Mexican woman and his children are always educated abroad.

These brief explanations respecting the tendencies to assimilate the white population, reveal also many political and economic questions which exist in Mexico regarding the situation of foreigners.

Education

The lack of education of the indigenous population, is the only obstacle to the dissolution of the Indian population into the mixed one. Mexico has a problem of education. It will suffice to say that there are 80 per cent of illiterates in our country. Education in Mexico has had many obstacles. The principal ones have been the

landlord system, which has created the peon class, who are really serfs, and the action of the Roman Catholic Church during the nineteenth century, which has assisted landlordism to preserve in ignorance the indigenous masses.

The activities of the Spanish friars in the seventeenth and eighteenth centuries, and in general of the Catholic clergy during those centuries, may be said to have been constantly beneficial to the indigenous race. However, when the clergy acquired vast wealth and the Church became the great landowner, then the beneficial work of the Catholic Church for the education of the indigenous races of Mexico and the Mexican rural population in general, ceased to exist and there began a counter movement. The tendency of the Church then was directed to maintaining the rural population in ignorance.

The previous governments, either were not aware of the problem or did not wish to educate the Indian and the proletariat. The best proof of the failure of the Catholic Church as educator of the Indians is that after the Church has had four hundred years of absolute dominion in educational matters, we still have in Mexico 80 per cent of illiterates.

The tendency of the revolutionary government is, not only to remove the obstacles that the Mexican Government might have, but to devote a considerable portion of its efforts and of the public funds to the education of the masses of the people.

Religious Problem

Mexico has no religious problem properly speaking. The Spanish system of patronage extended to the Catholic Church by the Spanish kings gave a mighty temporal power to the clergy, which lasted up to 1860. In that year owing to the War of Reform the Church was dispossessed of its property, incapacitated from acquiring real estate, and deprived of temporal power.

During the long government of General Diaz the Catholic clergy creeping on from point to point in concealed form, recovered much of its temporal power and rebuilt part of its fortune. At present some members of the Catholic clergy have a tendency to recover the temporal power which the Church had enjoyed previous to 1860. The tendency of the revolutionary government is to render effective the absolute separation of Church from State, and to

prevent the Mexican clergy from recovering its temporal power, leaving it, however, in the most absolute liberty as regards religious matters.

Agrarian Problem

The agrarian problem of Mexico is due to the geographical and ethnical conditions of the country. The Spanish colonial system of huge land grants, the constant absorption of real estate by the clergy during the eighteenth century and the first half of the nineteenth century, with the system of concession of Government lands adopted during the second half of the nineteenth century, created and continued a state of landlordism which has been the chief cause of disquiet in Mexico during the nineteenth century.

As a consequence of this landlordism there has been produced a constant condition of serfdom among the rural classes of Mexico, a condition known as peonage. The solution of the agrarian problem of Mexico consists in the destruction of landlordism to facilitate the formation of small farms, and also in the granting of "commons" to the villages. It includes the division or parcelling of large estates, and a system of taxes upon rural property to prevent the reconstruction of large estates. Up to date it may be said that large rural estates have almost never paid taxes.

Natural Resources

The lack of Mexican capital has been the reason that mining and other Mexican industries have not been developed save through foreign capital. The Spanish Government believed that the economic development of Mexico should be based on land monopoly, and also on commercial privileges granted to Spaniards born in the mother country. In the exploitation of the natural wealth of Mexico, the system followed by the past administrations, and especially by that of General Diaz, was that of granting concessions so intrenched in privilege that further competition became impossible. This system of privileges and monopoly comprised not only the mining, petroleum and water power industries, but all kinds of industries and manufactures, commerce and banking. It may be said that, in general, the economic development of Mexico during the administration of General Diaz, was the growth of big business based on privilege.

The endeavor of the Revolutionary Government of Mexico is to obtain an economic development based on unshackled competition, and of such a nature that the development of existing business may not prevent future commerce and industry. From this point of view, foreign capital invested in Mexico upon the system of privilege considers itself attacked by the present revolution. However, if we understand the general tendency of the Mexican Revolution, we find that it opens a field of action for the investment of foreign capital much wider than that existing heretofore.

Commercial Problem

The lack of fluvial navigation and the great height of the Central Plateau above the sea level, together with the uneven topography, have compelled Mexico to rely upon a scant system of railways. Because of this Mexico's commerce has been established on false bases. It has been simply importation and exportation with foreign countries, without developing domestic interchange of products. Commerce itself has been to a great extent the only fount of fiscal revenue, principally the commerce of importation. For a long time exports even of raw materials have been free from duty. The policy of the revolutionary government is to control the railways, these being the only ways of communication that the country has. It purposes also to develop other ways by utilizing the forces which lie latent in Mexico, *i.e.*, oil and water power.

Industrial Problem

The industrial development of Mexico has occurred during the last twenty years. Its basis has been artificial. It has consisted of an excessive protection to infant industries, rendering them uncertain and precarious because of their lack of mercantile bases, and it has prevented the establishment of competing industries. The tendency of the revolutionary government is to place the industrial development of the country upon a business basis, leaving aside the system of protection, concession, privileges and monopoly, until now the bases of that little development have been effected.

Political Problem

The diversity in types of civilization as shown by the Indian, the mestizo and the white, furnishes to Mexico a serious social and

political problem which may be set forth by saying that it is necessary to find a formula of Government which may serve at the same time for a type of mediaeval civilization, as is the mestizo, and for a type of modern civilization, as is the foreign immigrant or the educated creole. If this be not possible, it would be necessary to find various governmental formulae and various régimes for each one of the elements forming Mexico's population.

Up to the time of General Diaz the political laws of Mexico have been based on advanced theories, but these have never been rendered effective. This produced inequality both juridic and economic. The political problem of Mexico consists in rendering effective the political and civil law. In order to do this it is necessary above all to find the proper legal and political formulae, so that after those laws have been promulgated, it may be possible to apply them efficaciously, securing thus equality of rights among all men.

International Problems

The international problems of Mexico deserve special attention, the main one being found in her relations with the United States.

After the war of 1847 which cost Mexico half of her territory, Mexicans were not able to regain confidence in regard to the imperialistic tendency that the Latin American countries attribute to the United States. During the Mexican revolution, after the occupation of Vera Cruz and the Columbus expedition, the fears of Mexicans of a conflict with the United States have increased considerably, chiefly since it is known that one of the political parties of the United States frankly advocates intervention. The repeated and public statements against intervention made by the Democratic Government of the United States, have not been sufficient to allay the fears of Mexicans.

As a neighbor of the United States, Mexico will also have as an international problem the danger of a conflict between the United States and some other European or Asiatic power. The foes of the United States, who are always foes of the whole American continent, will certainly assume to be friends of Mexico, and will try to take advantage of any sort of resentment, feeling or distrust that Mexico may have against the United States. Mexico, nevertheless, understands that in case of a conflict between the United

States and any other nation outside of America, her attitude must be one of complete continental solidarity. On this point the revolutionary government has followed a policy of frankness and consistency in her relations with the United States, putting always her deeds in accordance with her words, and sincerely trying to reach an understanding with the people and the Government of the United States.

Within Mexico, the real international problem is that of protecting foreign life and property and of establishing proper relations between foreigners and natives. On account of the non-enforcement of the political and civil laws in favor of Mexicans, and on account of the always watchful diplomatic protection that foreigners have enjoyed, a sort of privileged condition has arisen little by little in favor of foreigners. Mexico has the problem of equalizing the condition of Mexicans and foreigners, not by lowering the status of the foreigners, but by raising the condition of natives.

The privileged condition of foreigners that has existed in Mexico for a long time, has produced a certain jealousy, and distrust with which Mexicans look upon the increase of immigration and foreign investments in Mexico, since such increases would be considered as the strengthening of a privileged class.

The problem for Mexico is to find the way in which foreign money and immigrants can freely come to Mexico and contribute to her progress without becoming a privileged class. Instead of becoming a growing menace to the sovereignty of Mexico, they should contribute to the consolidation of her sovereignty and her independence as a nation.

All the problems heretofore stated have been always complex and greatly misunderstood. The old régime had created such interests as have just been described and those interests were so strongly bound up with the Government, that during the last years of the government of General Diaz it was quite clear that no peaceful solution was attainable. The transformation of the whole system by congressional action trying to change the laws and the Government at large, as well as the economic conditions of the country, would have required probably a whole century of effort, and still it is not certain that such solution would have been reached or that in the meantime civil war would not have broken out.

After the election of General Diaz in 1910, it was well under-

stood that the purpose of his election was to perpetuate the same form of Government and the same system as had long been in existence. The people saw that it was impossible to transform anything by peaceful methods. They had then to resort to force in order to destroy a régime which was contrary to their liberty, development and welfare. The last six years of internal upheaval, though chaotic in appearance, mean for Mexico the sociological transformation of her people.

A scientific interpretation of the Mexican Revolution is not possible, unless facts are taken as a whole and a considerable period of time is analyzed. All of us know that in the every day reading of the newspapers of the United States, matters of the utmost importance are analyzed and studied and conclusions are drawn from incomplete facts. It is impossible to draw sane conclusions from facts thus secured. I have never seen a country, either in Europe or in South America, where conclusions are drawn or editorials are written save after a reasonable time has justified the drawing of such conclusions. But in the United States the rush of public curiosity for facts is misunderstood as an eager curiosity for ideas, and so this is the only country in the world where we can see that an editorial comes the same morning in which a mere rumor on some subject is published.

This way of studying sociological facts, sounds to me like the attempt of a physics student who studies the swing of the pendulum and instead of waiting until the whole swing is complete or until a certain number of swings have occurred, is so eager to draw scientific conclusions that he would at any moment of the swing proceed to calculate the exact direction in which the center of the earth is placed. The conclusion of that student would be that the earth is mad and that its center is changing foolishly.

It has been said that the Mexican Revolution is not properly a revolution, but mere anarchy, that countries at peace consider dangerous and intolerable. Nevertheless, if we can demonstrate with facts that the Mexican Revolution has followed exactly the natural course of any other revolution, and if it can be demonstrated that even at the present time the revolutionary government of Mexico is pursuing a well defined program of reconstruction, one must necessarily reach the conclusion that the Mexican people are not acting madly, nor blindly destroying her wealth and her men,

but performing a task of transformation beneficial and indispensable, from which results may be expected that will be commensurate with the sacrifices that are now being made.

It will appear indeed as strange and bold, and it will perhaps shock to a certain extent, especially the members of the American Academy of Political and Social Science and of the Pennsylvania Arbitration and Peace Society that in a scientific and pacifist audience like this, one should come to apologize for force and insurrection as a means of securing the liberty and welfare of her people. I am not trying to impose my views, but simply applying sociological criteria to facts that have occurred in Mexico.

When a system of work is right, but we fail to obtain results from our efforts for lack of efficiency, the task of the reformer consists in improving that system. But when a system is radically wrong, we must abandon that system and find a better one. The gradual and slow reform of a system to make it suit the requirements of a man, of a business enterprise, of an institution or of a country, is called *evolution*. The abandonment of a system to be replaced by another, is called a *revolution*. The use of force is not essential to a revolution; but the revolution in the personal conduct of men, in business or in communities, implies always a considerable effort and a great amount of sacrifice.

Historically, we can assert that with very few exceptions, the greatest conquests of human liberty and human welfare have not been made without large sacrifices of men and property. Sociologically, the revolution is the rebellion of a people against a social system that has been found wrong. But as every social system is embodied in certain laws and in a certain political organization, revolution appears always as a violation of existing laws and as an insurrection against the Government. Hence all revolutions appear as anarchical attempts to destroy society and this is also why most insurrections are called revolutions.

A revolution means the use of force to destroy an unsatisfactory system and the employment of force and intelligence to build the new system. A revolution has consequently two stages clearly defined; the destructive, which is nearly always a period of war and rebellion against the so-called established Government, and the stage of disavowal of most of the existing laws, which means the use of force against the social, economic and legal system.

When the old régime has been destroyed, the mere reëstablishment of legal order without any change, would be tantamount to the simple reconstruction of the same structure already destroyed. This is what sometimes makes revolutions fail. To avoid this, any revolution has a second stage that is always known as the period of revolutionary government. During this second period, force is also employed in the form of a dictatorial government, to establish the required reforms, that is to say, to lay the foundations of the new social, economic and political structure. After every revolution, a period of dictatorial interregnum has always followed, because revolutionary dictatorship means the use of force for reconstruction.

When the foundations of reconstruction have been laid down, then it is possible to return to a legal régime no longer based upon the old legislation nor upon the obsolete system, but upon new principles that become the new legal system, that is to say, the new régime. The French Revolution has been the most complete example of a revolution, with its frankly destructive period, its anarchic state, its revolutionary government and its new régime upon which France afterwards developed and we also can say upon which the rest of Europe has subsequently developed.

The Mexican Revolution was nothing more than the insurrection of the Mexican people against a very repressive and wealthy régime represented by the government of General Diaz, and against a social, political and economic system supporting such government. This revolution had as its prodrome the political insurrection of Madero. But Madero saw no more than the political side of the Mexican situation. He professed that a change of Government was sufficient to bring about a change in the general conditions of the country. Madero compromised with the Diaz régime, acquiesced in taking charge of his Government, and ruled the country with the same laws, the same procedure and even with the same men with whom General Diaz had ruled. The logical consequence was that Madero had to fail because he had not destroyed the old nor attempted to build a new régime. The assassination of Madero and the dictatorship of Huerta were mere attempts at reaction made by the old régime with its same men, its same money and its same procedure, and an attempt to reëstablish exactly the same old conditions that existed during General Diaz' rule.

The Constitutionalist Revolution set forth from the very beginning its line of conduct. The Plan of Guadalupe issued by Mr. Carranza in March, 1913, immediately after the assassination of Madero, is the straightest revolutionary proclamation that could be imagined to destroy an old régime. This plan meant the absolute disavowal of the executive, legislative and judicial powers that had existed up to that time, and authorized the use of force for the destruction of Huerta's government, which was being supported by General Diaz' army, by the power of the landowner and by the moral influence of the Catholic clergy.

A period of bloody war followed, and when Huerta was finally defeated and the chief of the constitutionalist revolution reached the City of Mexico, it was believed that the destructive period of the Mexican Revolution was at an end. But a period of an extremely chaotic and anarchic character necessarily followed. At the end of 1914 the Mexican situation was most puzzling and bewildering, and still it was at that very moment and in the middle of such an extreme confusion, that Don Venustiano Carranza, as the chief of the Constitutionalist Revolution, set forth the general outlines upon which the reconstruction of Mexico was to be carried out.

These outlines are embodied in the decree of December 12, 1914, which I will quote here as the best interpretation of the basic lines upon which the new régime and the new social system were to be found. The decree in substance indicates that whereas the use of force had been required to overthrow the Huerta Government in view of the chaotic conditions of the country, it was necessary to use the same force to continue the struggle until peace should be attained, and to reconstruct the new régime.

The main provisions of said decree read as follows:

Article 1. The Plan of Guadalupe of the 26th of March 1913 shall remain in force until the complete triumph of the Revolution. Consequently Citizen Venustiano Carranza will continue as First Chief of the Constitutionalist Revolution and in Charge of the Executive Power of the Nation, until such time as the enemy is vanquished and peace is restored.

Art. 2. The First Chief of the Revolution, in Charge of the Executive Power, will issue and put in force during the struggle all such laws, regulations and measures that may satisfy the economic, social and political requirements of the country, carrying out such reforms as public opinion may require to establish a régime to guarantee the equality among all Mexicans, to wit: Agrarian laws that may facilitate the creation of small property, parcelling the large estates and restoring to the villages the commons of which they were unjustly

dispossessed; fiscal laws tending to reach an equitable system of taxation upon real estate; legislation to better the condition of rural laborers, working men, miners and in general of all the proletariat; establishment of municipal liberty as a constitutional institution; basis for a new system of organization of the army; reform of the electoral system to obtain actual suffrage; organization of an independent judicial power both in the Federation and the States; revision of laws relating to marriage and civil status of persons; regulations that will guarantee the strict enforcement of the Reform laws; revision of the civil, criminal and commercial codes; reformation of judicial proceedings for the purpose of obtaining a rapid and efficient administration of justice; revision of laws relative to the exploitation of mines, oil, waters, forests and other natural resources of the country, in order to destroy monopolies created by the old régime and to avoid the formation of new monopolies in the future; political reforms that may guarantee the real enforcement of the Constitution of the Republic, and in general of such other laws as may be considered necessary to ensure to the inhabitants of the country the real and full enjoyment of their rights and equality before the law.

Art. 4. At the triumph of the Revolution, when the Supreme Power be reinstated in the City of Mexico and after municipal elections take place in most of the States of the Republic, the First Chief of the Revolution, in Charge of the Executive Power, will call elections for the Federal Congress fixing the proclamation, the dates and conditions in which said elections must take place.

Art. 5. When the national Congress assembles, the First Chief of the Revolution will report to it concerning his stewardship of the power vested upon him by this decree, and he will especially submit the reforms issued and put in force during the struggle, so that Congress may ratify, amend or supplement them, and raise to the rank of constitutional provisions such laws as may have to take that character; all before the establishment of constitutional order.

The reading of this decree is of the utmost importance to all who seem to be confused by events developing in Mexico since the overthrow of Huerta, and to those who see in Mexico only an incomprehensible condition of anarchy. It will be of still greater importance to know that this decree has been the rule under which the construction of Mexico is being made by the Revolutionary Government.

Students of the Revolution of Mexico from a disinterested and scientific point of view, should keep in mind, as an outline for the interpretation of the events of the last six years, the following points, which might be at the same time a sort of index to the chapters of an extended study of the Mexican situation.

I. Causes of the Mexican Revolution as derived from the political and economic development of the country up to the end of the nineteenth century.

II. Prodromes of the Mexican Revolution until the death of Madero.
III. Destruction of the political and military powers of the old régime, until August 1914.
IV. Destruction of the economic power of the old régime during the preconstitutional period (1915–1916).
V. Beginning of the reconstruction.

Such has been the development of the Mexican Revolution, and such is the interpretation of past, present and future occurrences in regard to this revolution. Such has to be the interpretation, regardless of who are the men in the government.

If Carranza and the men around him are personally overpowered by the new anarchic period, and if they have to die or get out, that would not mean that my conclusions are wrong. It would only mean that a man is not always a span between two régimes. There have been cases in which a revolution has been completed during the life of a man, be he Cromwell or Washington. At other times a long list of heroes and martyrs is required to complete a transformation of the people, from Mirabeau to Napoleon.

In Mexico we have had three revolutions. Our revolution of independence in 1810 was not carried out by a single man. Hidalgo initiated it and died without seeing the end. Morelos continued it and also passed away before our country was free. Guerrero was the only one who saw the consummation of our independence. In 1857 it took only Juarez to see the beginning and the end of the reform revolution. The present revolution has already consumed Madero. If Carranza does not see the end of this movement, that will not change the development of the revolution. It will only mean that Carranza himself and the men around him are no more than a link in the chain of men who will sacrifice their lives for the liberty and the welfare of the Mexican people.

To close my remarks I wish to reiterate my apologies to the audience, and especially to the members of the American Academy of Political and Social Science and of the Pennsylvania Arbitration and Peace Society, for the theme I have chosen for this conference. I sincerely believe that the people of this country need to study the Mexican Revolution, not only for the sake of their interest toward Mexico, nor for their own interest alone as our neighbors, but also

as an example of an economic and social revolution that is taking place in the twentieth century.

I wish a great prosperity and a long peace to this country, and that the solution of all its problems may be made by peaceful methods. Nations nevertheless, when they make mistakes in their development, have to experience a revolution. If such a revolution can be accomplished without disturbance of peace, unnecessary evils can be avoided and all the benefit that a revolution necessarily brings about will be reaped.

Bernard Shaw says that revolution is a national institution in England, because the English people, through democratic proceedings, can make a revolution every seven years, if they choose to do so. The Anglo Saxon referendum is no more than a right to peaceful revolution. The Mexican people do not enjoy that blessing, and have been obliged to engage in a bloody and costly revolution to attain their liberty and welfare. There is an excellent reason.

A revolution is not always a source of evil and tears, just as fire does not always produce devastation. Unexplored wildernesses of the Temperate Zone can be opened to agriculture by exploiting the forest wealth and at the same time preparing the soil for future cultivation. In tropical countries, however, the common way of opening fields to cultivation is to clear them with a great fire that consumes indeed much natural wealth, but which at the same time devours rapidly the jungle and by purifying and fertilizing the soil, saves a large amount of work.

THE CHARACTER AND THE PROGRESS OF THE REVOLUTION

By Hon. Ygnacio Bonillas,

Minister of Communications and Public Works of Mexico, and Member of the American and Mexican Joint Commission.

From its very inception, the spirit of reconstruction along lines of social, economic, political and industrial tendencies has been manifest in the Mexican Revolution. It has crystallized in deeds which have produced a deep impression upon the minds not only of those who have taken an active part in the movement, but also of those interested in preserving the old conditions. The character and earnestness of the principal leaders of the Mexican Revolution proclaimed to Huerta, the usurper, and to his associates, that the struggle, begun in the northern states of the Republic, was to be waged to a finish, not only to avenge a hideous crime, and to dispel from the mind of the civilized world the impression that the people of Mexico would submit tamely to such a national affront, but also that a new order of things might be established embodying improvements in all departments of the national life. It was annoying to Huerta and his followers that men from the north, whose records in private and public life were clean, and that men emerging from partial or complete obscurity, should sever their connections with homes and business; that they should give themselves up with all their resources to the vindication of the national honor and to the creation of new institutions and a government by the people and for the people.

Because of this attitude of the Huerta government, the revolutionists—whether engaged in military or civil pursuits—were often approached by the partisans of the illegal government, with tempting offers to discontinue their participation in the revolution and to accept high positions in civil, diplomatic, or active military service. The invariable reply was a flat refusal accompanied by patriotic declarations of unswerving fidelity to the high ideals proclaimed by the revolution. Such an attitude from resolute men, in the very capital and from all quarters of the Republic, could

only forebode ill to the usurper and to the privileged classes who supported him. The downfall of the government which had been born of treason and murder was accomplished by the victorious army headed by its first chief Venustiano Carranza. As Constitutional Governor of the State of Coahuila at the time of the coup d'état, he had never hesitated a moment to disavow the military government of Huerta. He did it also in spite of the appalling odds against him and the small group of patriots who took up arms with him. They firmly resolved to blot out the shame cast upon the national honor and to restore to the country the constitutional government which had perished with the tragical demise of its lawful representatives—Madero and Pino Suarez. It took seventeen months—from March, 1913 to August of the following year—to accomplish this. The enemy was vanquished in numerous encounters and the City of Mexico, the capital of the Republic, was finally occupied.

It is needless to mention the terrible sacrifices incurred in attaining the triumph. Historical precedents show distinctly that no important achievements in the life of a nation are accomplished without sacrifices, and we hold that, in the vindication of our national honor, no sacrifice could be too great.

It may be supposed by those who are unacquainted with Mexican political, social and economic conditions, that the original purpose of the revolution, having been accomplished by violent and destructive means, further conquest and the attainment of the national wellfare, might be left to the slow processes of evolution. To the leaders of the revolution, however, and to all other sound thinking people in Mexico, the opportune moment had arrived for carrying out political, social and economic reforms, deemed indispensable for the reëstablishment of a government founded upon principles of right and justice to all.

Furthermore, the triumph of the revolution was a triumph of the people, of the down-trodden and oppressed, over a corrupt aristocracy and more corrupt clergy. Since Colonial times and almost without interruption these privileged classes have held the reins of government and complete despotic sway over the country and its destinies. They have governed it for their own selfish aggrandizement and to the detriment, in all respects, of the other classes who constitute the great majority of the people. The suc-

cess of the revolution had been comparatively easy and the resources of the privileged classes at home and abroad, remained practically intact. Large numbers of officers, civil and military, of the old régime, who had been generously amnestied, remained within the confines of the country and many more such were enjoying the spoils of their rapacity in foreign lands.

It could hardly be expected that such elements, so thoroughly accustomed to rule the country in an absolute manner, would assume a mild attitude without a further struggle. While the armies of the old régime were being vanquished, they practiced their old tactics of creating dissension among the victors. The insubordination of the Division of the North and the unpatriotic action of the Aguascalientes convention was due to the efforts of these reactionaries to regain power.

In this second epoch of the Constitutionalist Revolution the struggle was more intense and the number of participants was greater than in any previous war in the history of the country. There was a time during the armed conflict when all except honor seemed to be lost for the cause of legality, personified by the First Chief Carranza and by the group of loyal citizens who derived from him a constant inspiration to perform acts of chivalry and valor, and to persist undismayed until final success was attained. Victory was achieved by the indomitable army under the leadership of General Obregon upon the battlefields of Celaya, Leon, Trinidad, Aguascalientes and many others where the armies of the reactionaries were completely and ignominiously defeated and dispersed.

It might be supposed that during the armed conflict in these two epochs attention had been given to nothing but the vanquishment of the enemy, and that nothing but a destructive campaign was the rule. Such was not the case. All departments of the government were organized and much reconstructive work was accomplished, although under most adverse circumstances. Wherever the Constitutionalist arms obtained control the organization of temporary municipal and state governments followed, and the work of pacification, and the betterment of conditions for the amelioration of the people ensued.

The most earnest endeavors have been and are being made by the government of the Revolution to restore order at the earliest possible moment. To that end, municipal elections have been held

throughout the country and the officials elected in their respective localities took their oath of office and entered upon the discharge of their duties on the 16th of last September, the anniversary of Mexican independence.

Another general election of great significance was held throughout the country last month. Delegates were chosen to a constitutional convention which is to meet at Queretaro on the 20th of this month, for the purpose of revising the federal constitution and to pass upon such decrees of the First Chieftaincy as are in the nature of Constitutional amendments. The convention will be in session for two months and during its deliberations will set the time for the next presidential election. This is an event to which the country looks forward with intense interest, as it hopes that with the return to Constitutional order, Mexico will take her place among the family of nations under a government of the people, by the people and for the people.

THE SANITARY AND EDUCATIONAL PROBLEMS OF MEXICO

By Hon. Alberto J. Pani,

Director General of the Constitutionalist Railways of Mexico and Member of the American and Mexican Joint Commission.

During the most acute and violent period of an armed revolution —a veritable chaos in which it would seem that the people after destroying everything try to commit suicide in a body—the news of isolated cases, however horrible, makes but little impression. As the struggle gains form by the grouping of men around the various nuclei which represent the different antagonistic principles, individuals grow in importance until the nucleus which best interprets the ambitions and wants of the people acquires absolute ascendancy. Henceforward this group is unreasonably expected to fulfil strictly all the obligations usually incumbent upon a government duly constituted. The sensation then provoked by the news of isolated cases of individual misfortune, because of their very rarity, causes greater consternation.

This is precisely what is occurring with the present Mexican government. Select any two dates from the beginning of its organization. Compare dispassionately the relative conditions of national life on each, and one must admit that the country is rapidly returning to normal political and social conditions. It is also undeniable that the temporary interruption of a line of communication, or the attack on a train or village by rebels or outlaws, now causes an exaggerated impression. People forget that not so long ago, the greater part of the railway lines, or even of the cities of the Republic were in the hands of these rebels or outlaws, and that in the very territory now dominated by the constitutionalist government, trains and towns were but too frequently assaulted.

It is unreasonable to try to make the present government responsible for the transgressions of its predecessors. The revolution itself is a natural consequence of these faults. Former governments who knew not how to prevent the revolution, are responsible for the evils which may have come in its train, and should the nation

be saved, as it shall be, it will be due solely to the citizens who have been willing to sacrifice themselves. Only through such personal sacrifices as these is it possible to construct a true fatherland.

The enemies of the new régime—irreconcilable because they will not accept the sacrifices imposed—are now burning their last cartridges, making the constitutionalist government responsible for many of the calamities which caused the revolution, and which the government, impelled by the generous impulse which generated it, purposes to remedy. Thus do we explain the protests of the discontented, and the monstrosity that these protests are even more energetic and loud when they defend money than when they defend life itself.

The theme of this night's address refers to one of these calamities, a shameful legacy of the past. Inimical interests are trying to attack the constitutionalist government on this score, though it is the first government in Mexico which has tried to remedy this evil. Having been appointed by the first chief in charge of the executive power of Mexico, Mr. Carranza, to make a study of the problem, I would have only to summarize or to copy, in order to develop such theme, some fragments of the resulting report.

One of the most imperative obligations that civilization imposes upon the State is to duly protect human life, to permit the growth of society. It becomes necessary to make known the precepts of private hygiene and to put them in practice, and to enforce the precepts of public hygiene. For the first, there is the school as an excellent organ of propaganda. For the second, with more direct bearing on healthfulness, there are principally special establishments to heal, to disinfect, to take prophylactic measures. Then there are engineering works, laws and regulations to put in force by a technical personnel, or by an administrative or police corps. *It may therefore be said without exaggeration, that there is a necessary relation of direct proportion between the sum of civilization acquired by a country, and the degree of perfection attained by its sanitary organization.*

The activities, in this respect, of General Diaz' government, during the thirty odd years of enforced peace and of apparent material well-being, were devoted almost exclusively to works to gratify the love of ostentation or peculation. Seldom were they devoted to the true needs of the country. There were erected magnificent buildings. To build the national theatre and capitol, both unfinished, it was planned to spend sixty millions of pesos. When it was a case of executing works of public utility, their construction was made subservient to the illicit ends pointed out. Thus, for

example, the works of city improvement, never finished, not even in the capital, in spite of the conditions of notorious unhealthfulness in some important towns, were always begun with elegant and costly asphalt pavements, which it became necessary to destroy and replace, whenever a water or drainage pipe had to be laid. The work of education undertaken by the government was chiefly dedicated to erecting costly buildings for schools: it is only in this way, therefore, that we can realize that the proportion of persons knowing how to read and write is barely 30 per cent of the total population in the Republic.

The net result of what was done in these respects during the long administration of General Diaz could not be more disastrous. If we take the average mortality for the nine years from 1904 to 1912, the heyday of that administration, we find that in Mexico City, where the greatest sum of culture and material progress is to to be found, there is *a rate of mortality of 42.3 deaths for each one thousand inhabitants.* That is to say:

I. *It is nearly three times that prevailing in American cities of similar density (16.1)*;

II. *Nearly two and one-half times larger than the average coefficient of mortality of comparable European cities (17.53)* and

III. *Greater than the coefficient of mortality of the Asiatic and African cities of Madras and Cairo* (39.51 and 40.15 respectively) *in spite of the fact that in the former, cholera morbus is endemic.*

During the same period the annual average of deaths in the City of Mexico was more than 11,500. These deaths were due to diseases that are avoidable if proper care of private and public health be observed and constitute an arraignment against the administration of General Diaz. As the deaths occasioned by the Revolution during the six years surely do not reach 70,000, we find that the government of General Diaz—so greatly eulogized—in the midst of peace and prosperity, did not kill fewer people than a formidable Revolution which set afire the whole Republic, and horrified the entire world.

But the truth is that General Diaz' government did not recognize the formula of *integral progress*—the only one which truly ennobles humanity—but wasted its energies in showy manifestations of *a progress purely material and fictitious,* with the inevitable train of vice and corruption. The ostentatious pageant—the most

shameless lie with which it has ever been attempted to deceive the world—which celebrated the anniversary of national independence, took place only a few weeks prior to the popular revolution of 1910, before whose onrush the government fell like a house of cards.

Let us now turn to the constitutionalist government. On its banner it has written its resolve to better the condition of the life of the people, socially and individually, and its sincerity and energy may be seen not only in its words but in its deeds.

The constitutionalist government remained at Vera Cruz at the close of 1914 and at the beginning and middle of 1915, while its army reconquered the territory of the Republic, which had been almost wholly in the hands of the enemy. In spite of being engaged in the most active campaign in the annals of Mexican history, this government still found time to take up the efficient political and administrative reorganization of the country.

Whoever may know something of our history, and may view with impartiality the long and complicated process of formation of our nationality, from the pre-Cortes period—through the troublous time of the Conquest, the colonial days under the viceroys, the wars of Independence, the convulsions only calmed by the iron hand of Diaz, through nearly a century of autonomous existence—until our own time—will be bound to discover in the salient manifestations of the life of our national organism, the unequivocal symptoms and stigmata of a serious pathological state, brought about by two principal agents: *the loathsome corruption of the upper classes, and the inconscience and wretchedness of the lower.*

The iniquitous means used by Don Porfirio Diaz to impose peace during more than thirty years, not only annulled all efforts tending to remedy the evils discussed, but rather determined their greater intensity. As a matter of fact, it satisfied the omnivorous appetites of his friends and satellites; it crushed and caused the criminal disappearance of whoever failed to render tribute or bow to his will; it fostered cowards and sycophants, repressing systematically and with an iron hand, every impulse of manliness and truth. It placed the administration of justice at the unconditional disposal of the rich, paying not the slightest heed to the lamentations of the poor. In a word, it increased the immorality and corruption of the small and privileged ruling class and increased in consequence the sufferings of the immense majority, grovelling in ignorance and hunger. Therefore, the thirty or more years of prætorian peace but served to deepen still further the secular chasm of hatred and rancor separating the two classes mentioned, and to provoke necessarily and fatally the social convulsion, begun in 1910, which has shaken the whole country.

The three aspects of the problem which I have presented—the economic, intellectual and moral—coincide with the purposes of *education* through *schools*, as ideally dreamed of by thinkers, that is as "*Institutions whose object is to guide and control the formation of habits to realize the highest social good.*" But our schools,

unfortunately, have not yet acquired the necessary strength to assuage in an appreciable degree, the horrible ambient immorality, or to counterweigh its inevitable effects of social dissolution.

The true problem of Mexico consists therefore in hygienizing the population physically and morally, and in endeavoring to find through all means available, an improvement in the precarious economic situation of our proletariat.

The part of the solution of the problem which corresponds to the Department of Education or to the municipalities, must be realized, by *establishing and maintaining the greatest possible number of schools.* To do this their cost must be reduced by means of *a rational simplification of the organization and of the school programs.* This must be done *without losing sight of the fact that its preferential orientations should be marked by:* (1) *the essentially technological character of the teaching,* to coöperate with all the other organs of the Government, in the work of economic improvement of the masses, and (2) *the diffusion of the elemental principles of hygiene,* as an efficient protection for the race.

"And finally, as the medium constitutes an educational factor more powerful than the schools themselves, *the country must, before and above all, organize its public administration upon a basis of absolute morality.*"

Restricting myself to the purpose of this address, it will in conclusion suffice to say that even when the constitutionalist government ruled but an insignificant portion of the country there were sent to the principal centers of culture of the United States several hundred teachers to investigate and secure data to reform school matters in Mexico. This was done at a time when dollars were of great importance for the purchase of war material.

Subsequently, in spite of the countless obstacles which seemed to obstruct every step of the government, the number of schools has been greatly increased. It is not much greater than it was before the Revolution and in some states the number has been doubled. There have been effected, besides, important works of city improvement in Mexico, Saltillo, Queretaro, Vera Cruz, etc., and the mouth of the Panuco River is about to be dredged. It has been specified in the respective contracts that the soil taken out is to be used to fill in the marshy zone around Tampico, thus eliminating the chief cause of the city's unhealthfulness.

In short, in order that the government which has arisen from the constitutionalist revolution may realize its program of public betterment, which implies the physical and moral hygienizing of Mexico, it is only necessary to give it time. Only some magic art could transform in a moment a group of human beings into an angel choir, or a piece of land into a paradise.

THE MEANING OF THE MEXICAN REVOLUTION

By Hon. Juan B. Rojo,

Counsellor of the State Department of Mexico and Secretary of the Mexican Section of the American and Mexican Joint Commission

The Mexican Revolution is a revolution. I use these words, which are not my own, to emphasize the true character of our struggle; and as I know that in the United States as well as in foreign lands, public opinion is at sea regarding us, due to the efforts of those who strive to resurrect obsolete systems, I have thought it my duty, as a Mexican who loves his native land, to try to explain, however deficiently, the real motives of this vast social movement. This excuses my efforts, such as they are, before so distinguished a gathering, in a language practically unknown to me.

The founts of alleged information are responsible for the derogatory conception of Mexico in the minds of most Americans. Writers of overheated imagination depict Mexico as a land of mental as well as physical quakes, where everything is perpetually boiling,—the climate, the politics, and the passions. Men of business look upon Mexico as an alluring field for capital, for investment (or rather for exploitation), in the most onerous sense of the word. The reader in general, reflecting on the morning pabulum of his favorite newspaper, believes that the revolution is but a kaleidoscopic succession of battles and skirmishes, with the leaders now on top, and now underneath, something like dogs and cats in a barrel. Even the fair-minded cannot know what is going on south of the River Grande, as they cannot know the truth.

In all social upheavals which have to be decided on the field of battle, the far-away observer is apt to lose sight of the motives and purposes, the psychological energy. He only rivets his attention upon the warrior's bloody business, which is but the exteriorization of thought's evolution. In all its history, from the struggle for independence, Mexico has struck some notes, has cleared some paths, which have awakened the interest of the United States.

The struggle to throw off the Spanish yoke, though it did not awake any special interest in the United States, did at least elicit

its sympathy. In truth the subjects of mutual interest between the budding North American democracy, and the secular Spanish colony were few. Investments of American capital, and American settlers were barely noticeable. It was after the fall of Maximilian's empire, and the triumph of the liberals in Mexico that relations really began. In that critical period of our history, when Napoleon III decided to impose by force an imperial throne upon free America, the spirit of justice and foresight of the American people awoke to the danger, and the United States helped us in a positive manner to regain our freedom and develop our individuality. Slowly, capital and technical skill came to work among us, and we received them with open arms.

Mexico is a great field for endeavor and capital, and fortunes have been made overnight. Therein lay the red flag of danger. Enormous regions on the north were surrendered for a song to would-be colonists who were to transform them into rose gardens, yet the wilderness still exists and the rose gardens are not in evidence. The Mexican government's concessions were utilized to exploit, not the land but the concession. This benefited many but not the country itself which lost untold millions of acres solely for the advantage of speculators, who had no intention of making needed improvements or of creating anything except trouble.

If it was the case of an "infant industry," it was smothered with privileges and franchises to such an extent that if a competitor tried later to enter the field, it found its efforts of no use in view of the first one's monopoly. It was simply that the first got all, and the others found the field closed. It would be out of place to cite examples in these cursory remarks, but there were many companies with no competition to face who dreamed only of their privileges. They did nothing, and prevented others from doing anything. I must say that free competition appeals much more to me. In struggles of all kinds, biological, social, and economic, the triumph goes to the fittest. I cannot believe that individuals, or industries, really require the state's crutch in order to progress.

The Mexican revolution understands the need of developing the country; that progress depends on work. It wishes to unshackle opportunity, and open the doors to those who wish to work and to get an adequate return for their efforts. Instead of accumulating all of the wealth in the grip of a handful who adopted a dog-in-the-

manger policy towards development, the revolution wishes to help the average man and to destroy the treadmill of hateful privilege.

Finally, the revolution has been called inimical to foreigners, and it is alleged that it denies them their rights. This is a phenomenon like those Spencer called "errors of social perspective." For a long time written law existed in Mexico merely as a matter of form and only in books. Its guarantees and its sanctions were never applied for the benefit of the common people. Only foreigners, and especially those of such high position that they could bring their influence to bear upon their diplomatic representatives, could secure the application of the law through diplomatic channels, provided such law was favorable to them. A rigorous law was always applied against the Mexican.

From all this there resulted the fact that thus the foreigner was aided and the Mexican was at a serious disadvantage in the enjoyment of rights and in the protection of the laws. It is now the purpose of the revolution that all may equally enjoy such benefits. The revolution withdraws nothing from the foreigners that they had before, but it grants to Mexicans what was denied to them. Hence the astonishment that for the first time in the history of Mexico the equality of all before the law is sought.

I wish to make this point clear. Our purpose is not to lower the status of the foreigners. We desire that they come and work among us, and contribute to the nation's development through their capital and labor and skill. But we also wish that the Mexican too may know that in his own country he will receive similar justice.

If my labored words have not been well understood, they may yet cast some light upon the points which I wish to make clear. If I have secured this result I shall consider myself happy. I beg this distinguished gathering to excuse my many deficiencies in the use of a language that is not my own.

CLOSING REMARKS BY THE PRESIDENT OF THE ACADEMY

Permit me, in the first place, to say to the members of the American and Mexican Joint Commission, how deeply we appreciate the privilege of welcoming you to this special session, which is being held in your honor. We all have the feeling that in the conduct of her international relations the United States must stand for new and higher standards of international dealing. Jealousy and distrust must give way to frankness, helpfulness and coöperation. If there is any one mission which the privileged position of the United States calls upon her to perform it is to sound a new note in international intercourse. It is because the work of this Commission is the expression of these higher standards that we deem it a privilege to do honor to the men who are conducting these negotiations. We realize that the situation bristles with difficulties; that the problems involved are delicate and undoubtedly at times baffling, but it is no less true that it is only through such negotiations that a permanent and effective settlement can be reached; a settlement not only in harmony with the dignity of both countries, but one calculated to allay animosities, promote mutual confidence and establish a relationship which will contribute to the peace and prosperity of both nations.

We desire to avail ourselves of your presence to give you a message which we hope you will carry with you to your people. We earnestly hope that the mission which has brought you to this country will be entirely successful; that the difficult and delicate problems pending between the United States and Mexico will be solved to the satisfaction of both countries. We hope, furthermore, that your domestic problems will be solved in a manner no less satisfactory. The people of the United States desire to see a Mexico prosperous, progressive, independent and sovereign. We desire this both for your sake and for our own. Our welfare, our peace of mind, depend in large measure on the establishment of cordial relations with our neighbors. You carry with you, therefore, the earnest hope of these two associations for the peace and prosperity of your country. You may rest assured that every effort

in Mexico to improve the condition of the masses of her people will find a responsive echo in the United States. In this work you have not only our good wishes, but the assurance that if we can in any way be helpful in the furtherance of this great plan we will deem it a privilege to coöperate. The vast educational agencies of this country are at your service in the solution of your educational problems; the public health agencies of the United States are ready to assist in the solution of the sanitary problems. It is our earnest hope that through a policy of frank and cordial coöperation there will be established in the relations between Mexico and the United States a new standard of international helpfulness and solidarity.

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MODERN INSURANCE PROBLEMS

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ERRATUM NOTICE: LA SALLE EXTENSION UNIVERSITY

In the article on "Correspondence School Instruction by Non-Academic Institutions" which appeared in the September, 1916, issue of *The Annals* (page 205), the name "La Salle Institute" should have read "La Salle Extension University." This correction is made at the suggestion of the author and in fairness to the La Salle Extension University, of Chicago, concerning whose work data are there given.

INCOME POLICIES

By Walter LeMar Talbot,

President, The Fidelity Mutual Life Insurance Company.

All life insurance is a provision for the future. For many years it was the provision of a definite sum of money to be paid in full to the beneficiary at the death of the insured. Income insurance looks a little farther into the future; it safeguards the proceeds of the policy by making definite provision for their distribution over a period of years. This form of insurance is one of the more recent developments of the life insurance idea and it stands out as a milestone in our economic progress. Before the coming of income policies, when a man insured his life under one of the usual forms of life policies, he was looking ahead to the day when death would deprive his wife or other dependents not only of his presence and companionship, but also of his income, and he visualized the payment by the insurance company of a stated sum of money which would, in part at least, compensate his dependents for the loss sustained. In the light of this later development of income insurance, the man insuring today has a clearer vision of the future. He can see well beyond the time of his own death; he can reach out into the after years, by means of an income policy, and can thus assume the burden of a proper distribution of the proceeds of his life insurance instead of placing this burden upon his dependents. He can also insure such a proper distribution to his own declining years.

Everyone who knows anything at all of life insurance has heard of at least three of the plans upon which it is written, namely, ordinary life, limited payment life and endowment. The first plan provides for the payment of a stipulated level premium during the entire lifetime of the insured; the second plan provides for the payment of a stipulated level premium for a limited number of years. Both plans give insurance for life, under promises to pay the amount of the insurance to the beneficiary upon the death of the insured. The third, or endowment plan, like the limited payment plan, contemplates the payment of premiums for a specified number of years only, but unlike either, the insurance is effected under promises to

pay the amount thereof upon the insured's attaining a certain age, or at death prior thereto.

Until within recent years the proceeds of these and other forms of policies were paid to beneficiaries in a lump sum. Latterly it has become much the vogue to disburse the proceeds in instalments, and therein lies the origin of the income policy. It will be seen, therefore, that the income policy is not a new plan of insurance, but simply contains a device or method, grafted on to the older plans, for leaving the proceeds of the policy with the insuring company, to be paid in instalments; and it may be written on the ordinary life, limited payment, endowment, and even on the term plan.

Income policies are divided into two great classes—those which provide income for beneficiaries and those which provide income for insurants themselves. The first is constructed by incorporating the income feature in ordinary life and limited payment life plans; the second is constructed by applying the same method to endowment plans or by the incorporation of disability benefit provisions in any of these plans. A treatment of the idea as a whole entails the consideration of the various types of income provided, and the application of these types to each of the forms of insurance to which they have been adapted.

TYPES OF INCOME

"Income" is rather a broad term. In its general application it may cover revenues arising from many sources. In its application to the subject in hand it deals specifically with certain types of instalments and annuities, hence it is desirable that our terminology be made clear.

Instalments. The term "instalments" when used in connection with an insurance policy refers to sums of money payable at stated times for a definite period. We thus have policies payable in ten, fifteen, twenty or more annual instalments certain; and in such case the instalments are payable during the fixed period whether the person to whom they are payable lives out that period or not. If the person to whom such instalments are payable dies before the end of the period, the remaining instalments can be made payable to the estate, or the commuted value of the same can be paid.

Life Annuities. A life annuity is an amount payable each year to an individual, dependent upon the continuance of the life of that

individual. A deferred annuity is, as its name implies, one in which the payments to the annuitant begin at some time in the future.

Continuous Instalments. The term "continuous instalment" is one that is used quite commonly in connection with income policies. This is a plan of settlement which combines with the provision for instalments certain a deferred annuity of equal amount to begin on completion of the instalments certain and to be paid as long as the beneficiary shall survive thereafter.

Thus it will be seen that the term "Income Policies" as applied to the ordinary forms of whole life insurance is a very flexible term and, as I shall develop it later, stretches still further than this in its application to an income for the insured himself under endowment policies and under disability provisions.

INCOME TO THE BENEFICIARY

Instalments Certain. As has been pointed out, instalments certain may be arranged for various periods of years: five, ten, fifteen, twenty, twenty-five or thirty. Twenty years is the period most commonly used. A settlement by instalments certain deals with definitely established facts; it is not dependent upon a life contingency except as to the time of payment of the first instalment, and this contingency, while it enters into a consideration of the premium to be charged, has no bearing whatever upon the amount or number of the instalments to be paid.

There are two distinct forms to be kept in mind. The one, for illustration, provides $10,000 of insurance which, upon the death of the insured, shall be paid to the beneficiary in twenty annual instalments. In this case at time of settlement the company has in hand $10,000 with which, at an assumed interest rate of 3½ per cent, it can guarantee twenty annual instalments of $679.80. The other form, instead of increasing the instalments by interest accretions, approaches from another angle, by discounting the interest earnings. This form, in contrast with the example I have just cited, provides twenty annual instalments of the fixed amount of $500. The ultimate amount payable to the beneficiary in this case, it will be seen, is $10,000, but the actual amount which the company must have on hand at the death of the insured is not $10,000 but its discounted equivalent. At an assumed interest rate of 3½ per cent this actual amount would be $7,354.90. In the first case the company charges

premiums upon an insurance of $10,000; in the second, it charges premiums only upon the actual amount of insurance involved, or $7,354.90. Either of these forms could be called a $10,000 policy, but they represent two distinct values: one an immediate $10,000 the other an ultimate $10,000. The fact that these things are so similar in name and yet so dissimilar in value unfortunately has led at times to unscrupulous misrepresentation. Applicants, in cases of competition, have been led to believe they were getting the full amount of insurance at a lower rate. As a measure of protection several state legislatures have required that contracts payable in instalments must show prominently the commuted value or cash equivalent of such instalments.

Continuous Instalments. The instalments certain policy, as I have shown, converts capital into income; this income continues only for a stated number of years, twenty years being the usual period. But the beneficiary may live longer. Having been accustomed to a fixed income, what will the situation be when that income ceases? To answer this question the late Emory McClintock, for many years the well known actuary of one of the prominent New York companies, devised the continuous instalment feature. The first policy of this kind, according to the best available information, was issued on February 1, 1893.

The provision of instalments certain is a relatively simple matter. It does not make any difference whether the beneficiary is five years of age or fifty years of age, the premium rate is the same. But the assumption of an obligation to pay twenty annual instalments certain, and to continue to pay the same amount annually thereafter so long as the beneficiary lives, immediately involves a new and very important fact, the age of the beneficiary; for it becomes necessary in this case to combine with the instalments certain a deferred annuity to the beneficiary of the same amount, to begin twenty years after the death of the insured.

Under this form of settlement the company stands obligated to pay twenty instalments certain to somebody. Should the beneficiary die before these twenty payments have been completed, then the residue is payable to the estate of the beneficiary. Usually in this case policies provide that upon the death of the beneficiary the commuted value of the unpaid instalments shall be paid to the estate of the beneficiary in a lump sum. The theory is that the purpose of

the income has been fulfilled, and it facilitates the settlement of the estate to bring the contract to an immediate termination. Of course, the death of the beneficiary of itself terminates the deferred annuity agreement and no value vests in the estate of the beneficiary by reason of this termination. Under the continuous instalment form, if the beneficiary die before the insured, this immediately terminates the deferred annuity agreement and, from that time on, the annual premium is reduced by the amount charged for the deferred annuity, the policy continuing for the face amount payable in twenty instalments certain. A new beneficiary may be substituted, but the deferred annuity feature cannot be restored as the life upon which it was originally predicated has ceased to exist.

Among very competent life insurance critics there are those who do not place a high value upon the continuous instalment feature. They argue that in the average case of a man and wife their ages are approximately the same, their chances of survivorship are about equal, and they point out that the probability of the wife surviving the husband for a period of more than twenty years is necessarily remote. While there is merit in this argument so far as it goes, the fact remains that the true values of these possibilities are taken into account with mathematical exactness in the making of the rate, consequently the benefit bears a proper relation to its cost. In the case of a son insuring for the benefit of his mother, I grant that the continuous instalment feature is not particularly interesting. At the outset there is a disparity of many years in their ages. Projecting this age-difference into the future on the basis of the American Experience Table of Mortality it will be seen that it is unlikely —but of course not impossible—that the mother will live to profit by the deferred annuity provision. Reverse the order. Consider the case of a parent insuring for the benefit of a young child and the continuous instalment feature immediately takes on a new meaning. But, as I have pointed out, the rate in all these cases is determined with mathematical exactness and the insured in each case gets exactly what he pays for.

Monthly Income. This policy involves no new principle. It merely introduces a new method of payment—the instalment idea carried to a finer degree. By a computation of interest it is not difficult to reduce an annual instalment into semi-annual, quarterly, or monthly payments. Under the usual forms the first annual in-

stalment is payable immediately upon due proof of the death of the insured. With many companies it is the practice, where monthly payments are desired, to make a simple division of the annual instalment into twelve parts without regard to interest, reasoning that the interest on the eleven deferred payments about compensates for the additional labor and expense of making twelve payments each year instead of one.

Immediate Payment and Monthly Income. This policy also involves no new principle. It is an attempt to adjust the method of settlement to the beneficiary's exact needs. As the name implies, it provides an immediate payment, usually one-tenth of the face amount, and thereafter a monthly income. The theory is that death, generally preceded by sickness, entails extraordinary expenses and a readjustment of the family finances. By providing for the payment of one-tenth of the face amount at death, this need is met and the beneficiary is assured an income for the future.

Optional Modes of Settlement. Recently it has become more or less general practice to include in the regular policy forms, even term policies, a provision offering various modes of settlement at death or maturity. Usually there are three options:

1. Proceeds left at interest. The proceeds of the policy may be left with the company at a guaranteed rate of interest, subject to withdrawal in whole or in part at any time on demand, under certain specified conditions.

2. Instalments certain. The proceeds shall be paid in equal annual, semi-annual, quarterly or monthly instalments for a period of from two to twenty-five years, as may be agreed.

3. Continuous instalments. This option operates as previously described. The amount of each instalment is determined by the age of the beneficiary or payee when the first instalment becomes due and, for obvious reasons, the company will require satisfactory evidence of the age of such beneficiary or payee.

Two tables are included in the provision, the one showing the instalments provided under Option 2, the other showing the amount of the continuous instalments, referred to in Option 3, at the various ages of payee or beneficiary.

This provision, it will be noted, is an extension of the income idea to a point that makes this method of settlement an available part of nearly all the regular forms of life insurance policies. As the name implies, these modes of settlement are *optional.* While the insured is alive and the policy in force he may specify in writing under which option he desires the proceeds of his policy paid.

Should he fail to exercise his right to make a choice, the right of choice is still open to the beneficiary after the insured's death. But it will be seen that it is necessary for one or the other to perform a definite act of election, otherwise the proceeds will be paid in a lump sum. Herein lies the one weakness of this provision—and it is not so much a weakness of the provision as it is a weakness of human nature. The fact that he has the privilege of election as to the method of settlement is very interesting to the average policyholder, but in this as in the matter of making one's will the actual performance is all too frequently put off. As a consequence much of the good that this provision might accomplish is not accomplished for the reason that the insured so often fails to exercise his right.

INCOME TO THE INSURED

Endowment Income. All that has been said in the foregoing sections deals with income policies as related to the beneficiary in ordinary life and limited payment life forms. In other words, an income provided by the insured for someone dependent upon him, this income to begin when his own income is cut off by death. But this same principle has been applied to the provision of an income for the insured himself by arranging an instalment settlement under an endowment policy. Thus a man of thirty may insure, for example, under a thirty year endowment policy, and, at age sixty, instead of receiving the proceeds of the policy in a lump sum he is assured a fixed income for say twenty years. In like manner the deferred annuity is also applied to the endowment income. By combining with the instalments certain a deferred annuity on the life of the insured, his policy guarantees him that at maturity he will receive the proceeds of the policy in twenty annual instalments certain and, should he survive that period, a continuance of these annual instalments for the rest of his life.

Disability Income. In addition to the provision of an income for the beneficiary upon the death of the insured, and the provision of an income for the insured himself to make up the shrinkage of his income in advancing years, there is still another field in which the income idea is being applied to good purpose. I refer to the granting of protection against the risk of total and permanent disability, that living death which not only cuts off income but very often makes necessary the sacrifice of life insurance protection at a time

when its need is most imminent. This provision was first introduced by the late L. G. Fouse, of Philadelphia, October 16, 1896. While something like one hundred and fifty life insurance companies are now offering some form of disability provision, a great many of these limit the provision to a mere waiver of premiums. This takes care of the policyholder's *insurance,* but it does not take care of *him.* The disability provision in its best development not only lifts from the insured the load of premium payments, but also provides an *income for him.* The method of treatment varies with different companies. In some cases provision is made for the payment of the face amount in eight equal annual instalments, in others ten instalments, still others provide for instalments over a longer period. In most of these cases the instalments paid to the insured on account of disability are deducted at death or maturity. A still later development of the idea, and quite the broadest protection that has come into this field, is the provision which guarantees that in case of total and presumably permanent disability the insured shall receive a stated annual income—or more correctly speaking, a disability annuity—which shall continue, if disability continues, until maturity, or death if prior. Whether the policy terminate by death or by maturity, the full face amount is paid, to the beneficiary in the one case, or if terminated by maturity, to the insured himself, without deduction of any payments made to the insured because of disability or of the premiums waived for the same reason.

The fact that the insured has become totally and permanently disabled does not as a rule alter the situation of the beneficiary or remove the need of insurance protection. A policy that converts insurance provided for the beneficiary into an income for the insured upon his becoming totally and permanently disabled serves one purpose, of course, but it is an immediate subversion of the chief purpose originally intended. The policy that keeps in mind the need of the beneficiary and at the same time makes full provision for the need of the insured, in case he should become totally and permanently disabled, serves both purposes and has much to commend it. In nearly all these forms the disability provision is limited to disability occuring before age sixty. To provide against the risk of disability in the more advanced ages would entail a very heavy premium which would make the whole proposition unattractive.

ADVANTAGES OF INCOME POLICIES

FOR THE BENEFICIARY

It is safe to say that 75 per cent of the beneficiaries of life insurance policies are women. They are not financiers; they are just plain, average women who with very few exceptions are entirely lacking in any broad grasp of business matters and especially the investment of large sums of money. All their lives they have depended upon husbands and fathers who have borne the financial responsibility and looked after the money matters of the family. What acquaintance they have with money is almost invariably on an income basis. In the case of the wage-earner the weekly pay envelope provides the amount with which the family has to deal. Move up the scale, you have the salary-earner's monthly check forming the basis of the family budget. Only at rare intervals, when the surplus earnings have accumulated to a sizable amount, is the family called upon seriously to consider the question of investment. Upon those rare occasions the husband or the father decides. There are exceptions, of course, but this is the rule. So with all her inexperience, sensitiveness, and over confidence in human nature, is it right to expect a woman suddenly bereft of her bread-winner and adviser to take hold of a large sum of money and invest it safely and profitably? Think of a man suddenly retiring from business and asking his wife and children to step in and take charge. Then contemplate, if you please, a widow, dejected and sorrowful, her children gathered about her, her lap full of money, the proceeds of her husband's life insurance. This money is her fortune, her protection against want. Her happiness in the future and the welfare of her children depend upon how wisely she invests it. That is the task with which she is confronted. The question is inevitable—has that husband done all that he might have done? Was it enough to have this money placed in his wife's lap and expect her to work out her own salvation?

It has been said that a widow is a shining mark for a mining shark. It would be funny if it were not so tragic. Every life insurance man of any experience has seen instance after instance where the proceeds of life insurance policies have been dissipated through the inexperience or gullibility of beneficiaries. *Puck* published a cartoon some time ago entitled "The Widow and Orphan." It pictures a woman in widow's weeds hurrying out of a life insur-

ance office, one hand clasping the hand of her child, the other a bag labeled "life insurance money." Coming pell-mell down the street after her is a mob of men, each with something to sell,—Cuban land, gold mining stock, suburban real estate, and what not! Verily, her real trials have just begun.

The Human Element. Or the sudden possession of a large sum of money may cause a woman to take a new turn—as it has some of her stronger brothers—to set up standards of living which cannot last and which in the end must result in humiliation and distress. Not long ago a prominent newspaper contained the following:

> Less than a year ago, one of the prominent citizens in this vicinity died, leaving his wife life insurance amounting to nearly $25,000. She immediately became "rich," rented a large house in a prominent locality and lavished money in furnishing it. She had not the faintest idea as to the value of money. What was left after dabbling in luxuries, the stock market, where she had invested at the suggestion of "her friends" previous to the recent slump, was cleaned up, so that she is left without a dollar other than what might be realized from the household furnishings. And indeed, there may not be very much realized from that source, as there are now two months' rent due, with no available funds to pay it.

The story is told of a widow and daughter in Buffalo, now living in a small apartment and taking in sewing to eke out a meager existence. This mother and daughter inherited in all three fortunes, approximately a million dollars. Most of this money was invested by the daughter, on the advice of friends, in high-interest-bearing securities. A good part of it was squandered in more or less extravagant living. In 1907, in the pinch of panic, it became necessary to realize on some of their investments, and sad was the awakening when they found that their packet of beautifully engraved certificates was valueless.

A Chicago business man, killed by a train, left his widow a total of $90,000 insurance. Ten thousand dollars of this amount was payable in instalments; $80,000 was payable in a lump sum. Her brothers and some other relatives were developing a gold mine. They had put their money into it; they believed in it; they persuaded her to invest her entire capital. She went in to the extent of her $80,000 and attempted to have the life insurance company commute the remaining $10,000 that was payable in instalments. This was contrary to the provisions of the policy and the company refused to comply. The widow became quite indignant and re-

sented what she thought to be an arbitrary decision. One year later when her next instalment was due she called at the office of the company, sought out the president and poured out her thanks and appreciation. Her entire investment of $80,000 was gone; this $10,000 instalment policy was the only thing that stood between her and want.

Countless instances of this same kind might be recited. No statistics are available on the subject. In the very nature of the case, it would be difficult to assemble data sufficiently complete and sufficiently reliable to reveal the whole truth. It has been estimated that of the proceeds of life insurance policies paid in lump sums about 60 per cent is lost by the beneficiaries within six years after the death of the insured. I do not vouch for this figure. I prefer to believe that it is an overestimate of the true facts. Although my own observation convinces me that most of our American people live in the present and do not greatly concern themselves with the future. With a large sum of money in hand a great many women succumb to the temptation to enjoy a season of luxurious living even at the risk of actual want in the future. They spend their capital instead of their income. This is more or less an American habit. In France and England they do not speak of a man as being worth 500,000 francs or £20,000. They live on income. The money they have and the money they save is carefully put by at interest. The average American carelessly feels that he is worth all the money he happens to have and too often he spends accordingly. Thrift has not yet become a prominent virtue in his life; he has not yet learned to think in terms of income.

But I am convinced that a wholesome change is setting in in our American life and income policies will play no small part in educating our people to conserve capital and live on income. Just now we are in a period when a great many of these policies are being sold; we have not yet reached that point when the benefits of this form of insurance will be universally felt and understood. In the course of years every community in this broad land will be dotted with homes here and there that will be in regular receipt every year, many of them every month, of an income check from some distant life insurance company. These income checks are bound to have an educational value to the children who grow up in those homes. They will not be without their lesson to the tradespeople of those

communities; in course of time they will undoubtedly exert a potent influence upon the thrift of the nation.

Sizes of Incomes. It is sometimes argued that an income policy is all right for a man who can carry a large amount, but that it does not fit the small insurer. It seems to me this is fallacious reasoning. The farther down you go in the scale of amount the less financial ability and investment wisdom you are likely to find in the beneficiary. If there is one person in the world who needs income rather than capital it is the woman who all her life has been educated to live out of a weekly pay envelope. Income is a relative thing. Twenty dollars a month, or even ten dollars a month would seem as big to this woman as $100 a month to her more fortunate sisters. A woman left with the problem of rearing her small children needs above all else shelter. Give such a woman a home she can be sure of and she will somehow contrive to feed and clothe her little ones. A sure income of twenty dollars a month or ten dollars a month would pay the house rent and give her a confidence that is hard to measure. A woman with a sure income, however small it may be, can take it with her wherever she goes. It is not like a piece of property that may shrink in value, or because of her inability to dispose of it anchor her to some particular spot.

The income policy is just as interesting to the man of large means. In fact, men of larger affairs and broad financial experience appreciate the value of the income provision more than anyone else. In this connection it is interesting to note that in the late J. Pierpont Morgan's will all bequests to women, with a single exception, were left in trust. Mr. Morgan was doubtless one of the shrewdest and most capable financiers of his time. Moreover there is every reason to suppose that the beneficiaries of his will, had they been given principal instead of income, would have received for the asking wise counsel and direction in the matter of its investment. But in his wisdom Mr. Morgan saw to it that the matter was definitely fixed before his death. Alba Johnson, President of the Baldwin Locomotive Works, one of the largest manufacturing plants in the world, in addressing a body of life insurance men recently, told of a similar provision he had made in the case of his own sons. He had no reason to feel that his sons would not grow up to be worthy and capable men. He did not wish to place any stigma upon them, but he was anxious to make their future sure. Accordingly, he

said, he took $100,000 insurance on his life for each one of them, and willed that this amount be put in trust.

ADVANTAGES FOR THE INSURED

The foregoing relates the advantages of the income principle to the beneficiary. As much and more might be written of the extension of these advantages to the insured by the extension of income to endowment.

The creation of an estate for those who usually do not accumulate one during life is one of the greatest benefits of life insurance. The teacher, the clergyman, the clerk, the American man—and his name is legion—who goes through life on a salary which is definitely limited, finds in insurance the only means of leaving to his family an estate sufficient to meet stark necessity. The greatest advantage of the life insurance policy is that it creates that estate immediately and guarantees safety at once.

But such a man is one who, if he live to advanced age, finds the necessity for provision for dependents grow less and necessity for provision for his own age grow stronger as the years wear on. Hence the endowment idea.

Strange to say, the maturity of his policy finds such a man very often in almost the same position as the widow to whom the insurance company has just paid unwonted thousands. He has lived his life on a monthly or weekly check, his whole training in investment has been along the lines of putting by small amounts to realize a total adequate sum. He has seldom, if ever, been asked to invest any considerable amount of money. Moreover, he is an old man in most cases and his knowledge of business values is often far from up to date. In some instances he is entirely under the domination of next of kin who may not be too keenly interested in his welfare in comparison with their own. To such a man is turned over the thousands which he has saved during twenty, twenty-five, or thirty years. Quite often it is all that stands between him and absolute poverty.

For such a man, for the hundreds of men who, in varying degrees and varying ways, are so placed, the income plan is a great and needed protection. For the man who sees before him a certain number of years of limited production to be followed, if he live, by some years of complete or partial non-production, the policy which

combines the endowment plan with income for life must commend itself if he will take the necessary time and possesses the ability to give insurance a sober, clear consideration.

Advantages of Administration. Among the many general advantages gained by income insurance, that of its help in simplifying the vexed problem of estate administration is one which deserves more than passing mention. The transfer of property from the dead to the living is one of the great functions of a civilized society and, in our highly complex and greatly interwoven structure of modern life, it has become a wonderfully intricate but, in many cases, far from economical machine.

The income policy is, in effect, a trusteeship. In its operation it is very much like a will with the insured acting as his own executor. The entire disposition of the estate—this portion of his estate—is definitely fixed before his death; no lawyer's fees or court costs, no embarrassment or delays or difficulties can enter into the administration of this estate. The insurance company fills the rôle of administrator; by law, by contract and by a proper regard for the wishes of the insured, it is compelled to distribute the proceeds precisely as the insured has directed through the income policy. And there is never the fear that the institution will die as there is in the case of the personal executor or administrator.

Any man who wants to dispose of an estate must first get an estate to dispose of. The income policy also provides that. Immediately upon payment of the first premium the insured's estate is richer by at least the face amount of the policy, and it is an estate that will not shrink in the administration. The beneficiary can count absolutely on what she will receive, when and for how long.

Judge White of the Probate Court at Cleveland, Ohio, once said that after an experience of years it was his observation that the loss was oftentimes considerable in estates admitted to probate without litigation, not to mention the delay, defeat and the expenses of contested cases, or loss in consequence of incompetent administration. "Fortunes accumulated by the toil of years," said the Judge, "often shrink with amazing rapidity in the hands of incompetent next-of-kin, and the beneficent provision of wills are, in many cases, defeated by improvident and ignorant administration." Speaking of life insurance funds in this connection the Judge said:

No one becomes better acquainted with the value of life insurance than the judicial officer who has in his control the administration of the rights of widows and orphans. My observation is that policies of life insurance that provide for their payment in instalments . . . . instead of policies which secure a sum in gross at maturity, are very much safer and better for the beneficiaries. Considering this whole matter, I am free to say that estates one-half as large, administered by a . . . . duly constituted corporate institution, would give, in a large majority of cases, better results than estates twice as large, administered by indiscriminate next-of-kin who are entitled by law to the letters; and that life insurance payable in instalments . . . . will produce, in a majority of cases, double the benefit that would be realized upon insurance payable in a gross sum immediately after the death of the assured.

ADVANTAGES FOR AGENT AND COMPANY

Necessarily the many points upon which income policies make their appeal to insured and beneficiary are at once points of advantage to the agent. He makes his livelihood out of the sale of policies. Therefore, to borrow a phrase from the field of commercial salesmanship, he is interested in anything that will make his goods more attractive to the buying public. Undoubtedly income policies have done this. They at once appeal to a man's business sense, and they appeal also to the best sentiment in his nature, offering him a means by which he can bring to his family, years after he has passed from the scene, an ever-recurring reminder of his love for them and his tender solicitude for their material welfare.

It is interesting to note how the income idea will sometimes effect a sale where an ordinary form of insurance would not evoke much interest. For example, a certain man had been solicited a number of times but none of the agents who interviewed him seemed able to make any impression. His wife was dead; he had a large amount of insurance; there was no one dependent upon him but a six-year-old daughter. Now it so happened that this child was a victim of infantile paralysis and there was every indication that she would be a cripple for life. Another agent went into the case, learned this fact, and also learned that all of this man's insurance was payable in a lump sum. He had no difficulty in convincing him that an income policy was the kind of protection he needed to remove from the field of doubt the future care of that helpless daughter, and he succeeded in placing an additional policy on that life.

A similar instance is related in the case of a father with a blind

son. This man also carried a large line of insurance but when the advantages of the income policy were made clear to him, he was convinced that he had not gone as far as he might go in the protection of his helpless offspring. Another father with an only daughter was glad to take an income policy in addition to his other insurance upon the suggestion of an income check to arrive each year on his daughter's birthday to keep green in her memory her father's affection. These, of course, are the exceptional cases, but they serve to illustrate the salesmanship value of the income idea.

Many parents like to feel that their daughter is not entirely dependent upon her husband's income. So long as the father is alive there is little to fear, but after his death there is always a chance that things may not go just right. Here again the income policy steps in with just the right provision; not a lump sum of money that an improvident husband might squander, not a piece of property that might be converted into cash and disappear in the same way, but an income that can be paid only to that daughter, an income that will continue with unfailing regularity whatever else may happen to her family or its finances. Such a provision will give her an independence that may have an important bearing upon her happiness.

In insuring the lives of professional men the agent also finds the income policy a great help. Very frequently men of this class so thoroughly devote themselves to their special line of work that the thought of commercial profit gets little attention. Some of the brainiest men the world has ever known have accumulated little or nothing. The income policy makes a strong appeal to this class.

It is the testimony of all agents who have had experience that the income idea serves to increase the amount of the average policy. The whole presentation is on a basis of income. The prospect is led to think in terms of income. The face amount of the policy is kept in the background and seldom mentioned. Very often a man will buy a policy providing an income of $100 a month when if he had been approached on the basis of lump-sum insurance he could not have been persuaded to take more than one half the equivalent face amount. It is a well established fact that most men are under insured.

The personal income, that is the income to the insured himself, is particularly valuable as a stimulator of business. And one does

not have to search far to find the reason. If there is one thing in the world that the average man is interested in it is *himself*. This is quite natural and quite human. Self-preservation is the first law of nature. Purely as a matter of salesmanship it is easier to sell a man a policy from which he himself will reap the benefit than to interest him in something which will take place after he is dead. This is the fine distinction between *death* insurance and true *life* insurance—insurance for the living.

Nearly every man in active business hopes to retire some day but with most men it is only a hope, they have no plan. A policy providing a sure income to begin at age sixty or sixty-five and to continue for the rest of the insured's life is an ideal retirement plan. And when the same policy includes life insurance protection for the beneficiary and the provision of a disability income in the event of the insured's becoming totally and permanently disabled, it will be seen that all of life's major contingencies are well provided for. This policy adjusts itself to the insured's changing needs; it provides insurance protection when he needs that; it provides an income when his own income-producing powers are on the wane; it provides that in event of total and permanent disability he will be relieved of the burden of premium payments and will receive a disability income which, in a measure at least, will compensate the loss of his own income. This attractive combination of features makes a strong appeal to men, and just as strong an appeal to employed women. It presents life insurance on a new and interesting basis and makes the work of the agent easier and more profitable.

Then there is another side, and this is of interest to beneficiary, insured, agent and company. Whether it be income to beneficiary or income to insured it is taken for a definite purpose, with a certain specific end in view. This being the case I am convinced that a broad experience in the future will show a better record of persistency in this class of business as compared with lump-sum life insurance. Nor do I feel that the average policyholder will be so apt to borrow from future income as he now borrows from what he carelessly regards as present capital.

THE BROADER ASPECT

While the many solid advantages of the income principle as applied to life insurance are becoming more evident, and while the

rapid growth in the writing of this form of policy is an indication that it is to be an ever increasing factor in the insurance business of the nation, there is another and broader aspect of the subject which has constantly forced itself upon my attention.

The growth of the "income idea" is not only an indication of the increased thought of life insurance investors, but it is a guage and a sign of the increasing growth of thought and sense in the American people. It is an almost certain indication of the solid, sure and inevitable development of the character of the people of this country toward care and thrift. It is one of the great evidences of the passing of the pioneer, the carelessness for the future, the instability of aim which mark all new countries. It is the growth of the desire to make life more certain, comfort more sure, reward more definite, which is the underlying desire of civilized man and which is the measure, in its presence and force, of his civilization. It is not the only evidence of this national development, but it is one of the evidences which is most easily discernible and lends itself to accurate measurement. It is not necessary for me to add that this increasing tendency toward thrift is something which does, and indeed ought to, give rise to a sentiment which may be described only as patriotic.

Not only in its revelation of the growing thrift of the people does this growth of income insurance give material for wider thoughts and open up great vistas of economic speculation. It is a further indication, it seems to me, of the inherent purpose of the American people to solve problems in a democratic way. It is a step toward the solution of such vexing questions as "old age pensions" and "compensation" which have for some years occupied the minds of European governments and resulted in advanced and debated legislation. It would be a remarkable thing indeed if the American nation, of itself, within its own homes, by the might of the massed consciousness of a sane and thinking people, should solve these problems without the aid of laws by which the thrifty majority force thrift upon the thriftless minority. It is possible to believe that the people of this nation may in such increasing numbers subtract investment from wages in sufficient amount to safeguard old age and disability that the government shall never have to do it for them. That this is not Utopian may be learned from a glimpse at the statistics of life insurance; that it is democratic may be main-

tained by the statement that the mutual life insurance company is one of the most voluntary and democratic institutions ever developed in society.

It is in consideration of these wider aspects of the relation between life insurance as an institution and the nation as a whole that the income policy takes on a singularly significant, almost prophetic aspect. Nor can the man who reflects upon this aspect, with its great and ever widening growth, its increasing weaving of itself into the very heart of the thrift and personal prosperity of a vast people, fail to reflect also upon the equally enormous growth of life insurance institutions which must inevitably go with it. It is a reflection which brings with it a solemn feeling of responsibility—but not of doubt. For I firmly believe that the same desire to protect the home which has been the root and stock of American life insurance, the same growing sense of thrift and responsibility which has been the main spring of all its developments, such as the income policy, will keep pace with material growth, and that the same spirit which has increased insurance savings to the billions will walk hand-in-hand with the spirit which converted insurance companies from private corporations into great mutual democracies. It is of a vision such as this, not only possible but probable, that the rapid growth and development of the income policy is a hope and a sign.

LIFE ANNUITIES

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The primary function of the life annuity is to insure that a given sum of money will produce a life income larger in amount than could be safely secured through the channels of ordinary investment. The regular life annuity contract is a promise to pay, in consideration of a single cash sum, a fixed amount periodically during the lifetime of a designated person, called the annuitant. Annuities in practice are paid yearly, half-yearly, quarterly or monthly.

The periodical payment yielded by a given sum invested in an annuity is larger than the return through the channels of regular investment, for the reason that each annuity payment consists of interest and of a portion of the principal of the invested fund. If the length of life of the individual could be exactly foretold, he could establish his own annuity fund. He would be able to use a definite portion of the principal each year with assurance that the fund would not be exhausted during his lifetime. For example, if a man knew that he would live exactly ten years from a given moment and if he knew that during that period he could realize exactly $4.50 for each $100 invested in the regular manner, he would find by a simple computation that each $100 applied as an annuity would yield $12.64 at the end of each year for ten years. Each yearly payment would contain a portion of the principal as well as interest. At the expiration of the ten years the last cent of principal would have been withdrawn.

Because of the uncertainty of life for the individual, and, on the other hand, of the comparative certainty of the average mortality rates that will be experienced by a large group of individuals collectively, annuities are made possible through the coöperative association of annuitants into groups, sufficiently large to insure the operation of the law of average. In practice, this coöperative association is made possible by the insurance companies which

establish annuity funds and sell annuities to the public. It is the purpose of the present article to discuss in a non-technical manner some of the problems that arise in theory and practice in connection with annuities and to portray some of the developments that have come about in recent years in the application of annuities to the needs of the public.

COMPUTATION OF ANNUITY RATES

To the layman, the calculation of the annuity premium is presumably based upon the so-called "Expectation of Life" of the annuitant. That is to say, if the mortality table which forms the basis of the calculation indicates that the expectation of life is a certain number of years, it is assumed that the true annuity premium is the present value of a series of annuity payments extending for exactly that number of years. A calculation of this nature will, it is true, yield a rough approximation to the true present value of the life annuity, but that is all. It can be demonstrated that the method always *overstates* the annuity value. In practice it is never employed for the scientific computation of rates. In fact, to the actuary, the expectation of life is hardly more than of academic interest. He may now and then employ it to compare the relative characteristics of different mortality tables, but for the scientific computation of monetary values, *never*.

The correct method of computing annuity premiums is essentially as follows: The mortality table, upon which the computation is based, consists fundamentally of a series of numbers, showing how many persons out of a given number alive at the youngest age in the table, survive to each age throughout the possible range of life. Given, therefore, a large group of persons all of the same age, the mortality table renders it possible to forecast how many of the group will be alive one year hence, two years hence, three years hence, and so on until all of the members of the group have passed away. If, therefore, a promise should be made to pay a yearly annuity of a dollar to each member of the original group, it could be foretold how much would have to be paid at the end of the first year to those surviving at that time, how much would have to be paid at the end of the second year and at the end of the third year, and so on throughout the number of years covering the possible span of life of any of the members of the group. This

series of payments may be compared to a serial bond issue maturing in definite amounts throughout a period of years. And just as the banking house computes the present value of the principal payments under the serial bond issue, so the actuary computes the present value of the series of annuity payments that will be made to the members of the annuity group. Dividing the present value of the complete series of future annuity payments, by the original number of members of the group, he arrives at the true present value of the life annuity on the basis of the mortality table employed and of the rate of interest assumed in determining the present value of the future payments.[1]

It will be of interest to compare the present value of the life annuity computed by the erroneous expectation-of-life method, with the true present value. Employing the Carlisle Table of mortality as the standard, we find that at age 35 the expectation of life is 31 years. On a 4 per cent basis the present value of an annuity of $1,000 payable yearly for 31 years, is $17,588. The true value of the life annuity of the same amount at age 35, on the basis of the Carlisle Table and 4 per cent interest, is $16,041. At age 75, where the expectation of life is 7 years by the Carlisle Table, the erroneous value of the 4 per cent life annuity of $1,000 payable yearly is $6,002 and the true value is $5,239. It is strange that in so many of our courts, the expectation-of-life method is still retained for the calculation of claims where life annuities are involved. One would have surmised that the error therein involved would not have remained unchallenged and that a demand would have arisen for the abandonment of a method which is so unfitted for scientific computation.

ANNUITY RATES IN AMERICA AND IN GREAT BRITAIN

At this point it will be instructive to set out in tabular form the percentage yearly return upon capital invested in an annuity at certain ages in America and in Great Britain. For the purpose of comparison, the fifteen largest United States' and Canadian companies which write annuities, and the fifteen largest British com-

[1] In practice, this extended method of computation is not actually required, since mathematical short-cuts have been developed which greatly facilitate the actuarial calculation. The final results of the short method, however, are identical with those obtained by the extended process described.

panies which write annuities, have been selected and the rates of each group of companies averaged. The average, together with the highest and lowest return under the given ages are shown in the following table:

TABLE SHOWING COMPARATIVE RETURNS ON AMERICAN AND BRITISH ANNUITIES

Age		Male		Female	
		15 American companies	15 British companies[1]	15 American companies	15 British companies[1]
40	Lowest	5.40	5.41	5.29	5.21
	Average	**5.83%**	**5.88%**	**5.53%**	**5.56%**
	Highest	6.29	6.21	6.08	5.85
50	Lowest	6.57	6.61	6.22	6.13
	Average	**7.03%**	**7.14%**	**6.51%**	**6.59%**
	Highest	7.58	7.46	7.07	6.82
60	Lowest	8.55	8.75	7.89	7.78
	Average	**9.21%**	**9.41%**	**8.31%**	**8.36%**
	Highest	9.87	9.63	8.83	8.58
70	Lowest	11.91	12.80	11.39	11.33
	Average	**13.27%**	**13.73%**	**11.94%**	**12.14%**
	Highest	13.85	14.00	12.47	12.35
80	Lowest	17.76		16.57	
	Average	**19.35%**		**17.60%**	
	Highest	22.47		20.20	

[1] The rates of the British companies, as usually published, provide for the payment of the annuity in half-yearly installments and for the payment at the death of the annuitant, of such proportion of the annuity payment as may have accrued up to the date of death. In order to place the comparison of the two sets of rates upon the same basis, the British figures were "corrected" by means of the British Offices' annuity tables with 3½ per cent interest.

The two uniform characteristics indicated by this table are:

(a) That the return is greater to male than to female annuitants. This characteristic flows from the indisputable fact that the vitality of female annuitants is superior to that of male annuitants.

(b) That the average return is less in the American than in the

British companies. This characteristic probably results from the fact that the American annuitants are longer lived than British annuitants.

ANNUITIES MOST POPULAR AT THE OLDER AGES

A casual inspection of the foregoing table explains at once why it is that few annuities are sold at the younger ages. The percentage return at these ages is not sufficiently in excess of the return upon funds invested through the regular channels to induce prospective annuitants to hazard the loss of a considerable portion of their principal by investing in an annuity. At the older ages, however, where the return exceeds say 8 per cent, the annuity makes its greatest appeal. In no other manner can a sum of money be invested to yield an absolutely certain life income of so large an amount. It is true that there is a possibility of death before the principal, together with a normal rate of interest, may have been returned to the annuitant. But this possibility of loss is in the nature of a premium which the annuitant pays to insure the receipt of a guaranteed life income, perhaps several times the amount that could otherwise be obtained from "gilt edge" investments.

Annuities have reached their greatest development in older, longer established countries where there are large accumulations of capital and where interest rates are relatively low. Pioneer countries, where available capital is urgently needed for development of their resources and where the return upon investments is correspondingly large, know little of annuities. For this reason, America has had less experience with annuities than has Great Britain. It will be interesting to note the effect of the war upon the annuity situation. If the accumulation of capital in the warring countries shall continue to be depleted and if the rate of interest after the war shall rise, as seems probable, there will exist a double influence tending to retard the annuity business of the European companies.

A rising interest rate will of course make itself felt in this country but it is hardly likely that the reaction upon annuities will be so pronounced here, as in Europe. It may even be completely neutralized by the presence of larger accumulations of capital arising out of our present prosperity.

LIBERATION OF CAPITAL FOR PRESENT USE

An important, but less well known, application of the annuity is to the problem of liberating for the urgent needs of the present, capital that would otherwise be held invested because of the income it produces. An excellent example taken from the literature of a company that has made a specialty of the annuity business, will serve to make this application clear:

A father, 69 years of age, had two sons, one a lawyer, age 27, and the other a doctor, age 29. Each was struggling to build up a practice in London. The father realized that his boys were then more in need of financial assistance than they were likely to be in later years after he had passed away. His income, about £400 a year, derived from investment of £12,000, was just sufficient to meet his own requirements. If he gave his sons any of the capital he reduced his own income. He solved the difficulty by purchasing an annuity of £400 payable £100 a quarter. This cost him about £3,184 of his capital. The balance of £8,816 he equally divided between his sons, enabling the doctor to move to Harley Street, and the lawyer to secure a remunerative partnership.

It is safe to predict that the application of the annuity thus to liberate funds for present application that would otherwise be held invested until the death of the benefactor, will become more extensive as the public becomes familiar with the possibilities offered by the annuity contract.

ANNUITANT MORTALITY

Annuitants are proverbially long-lived. The reasons therefor are not far to seek. In the first place, only those who feel assured of a good chance of living to old age are likely to apply for annuities. This self-selection on the part of annuitants is marked. It is indicated by the fact that the mortality among a group of annuitants who have recently purchased their contracts is much lower than the mortality among a group of annuitants of the *same age* who have held their contracts for a longer period.

A similar phenomenon occurs in the field of life insurance where the applicants for insurance policies are medically examined before acceptance. It is found that the mortality among policyholders who have recently become insured is lower than the mortality among policyholders of the same age who have been insured for a longer period. There is no medical examination required of the prospective annuitant, but his "self-selection" produces the

same kind of effect as does a rigid medical examination of the prospective insurance policyholder.

In the second place, the condition created by the very existence of the annuity tends to the longevity of the annuitant. The annuity eliminates all worry as to the safety of the investment. At best, the man or woman who is solely dependent upon the income from invested funds cannot be free from anxiety as to the safety of the income or of the principal. There is always a possibility of loss from trade depressions, labor crises, war or rumors of war. When an investment is made in an annuity in a well-established company, the income is rendered as secure as it is humanly possible so to do. A great financial institution guarantees the payment of that income, and there is the additional safeguard that the state governments create departments whose duty it is to supervise the companies and to conserve the interests of all who hold their contracts. The entire absence of anxiety is one of the factors tending to the extraordinary longevity of annuitants.

One striking characteristic, invariably shown, is that female annuitants possess vitality superior to that of male annuitants. It is on this account that an annuity on a male life costs less than a similar annuity on a female life.

Another characteristic of annuitant mortality is that, with but slight exception, each successive mortality table that has appeared, has shown a decrease in the mortality rates. This is particularly true of the tables based upon female annuitants. Under life insurance contracts, an improvement in vitality is a source of gain, since every death claim deferred provides opportunity for premium and interest income to build up the fund with which the claim will ultimately be met. In the case of annuity contracts, however, the improvement in vitality is a source of loss against which the companies must carefully safeguard themselves.

The British government, which sells annuities in connection with the national debt, made a costly error at the inauguration of its annuity transactions. One of the earliest of the mortality tables to come into general use was the Northampton Table, published in 1783. This table was adopted by at least one life insurance company as a basis for computing insurance premiums and owing to the high rates of mortality shown by the table, the insurance contracts yielded the company a handsome profit. Because of the

prestige thus gained for the Northampton Table, it was adopted as a basis of calculation when the British government undertook the sale of annuities. The result was a heavy loss, since the high rates of mortality produced exactly the opposite effect under the annuities from what they had produced under the life insurance contracts.

In discussing the annuity rates of American and British companies, mention was made of the fact that the rate of mortality is higher among British annuitants than among American annuitants. This result may possibly be attributed to a greater salubrity of the climate in America. Or it may be attributed in some measure to the fact that in Great Britain, annuities are frequently purchased under the terms of wills, so that there is less opportunity for self-selection on the part of the annuitants. It is claimed that a larger proportion of inferior lives is therefore included among the British annuitants than is the case in this country where most of the annuity business arises from those who voluntarily purchase their own annuities.

Apropos to the subject of annuitant mortality, it is interesting to note that a few companies have adopted the plan of selling annuities on more favorable terms to those who, upon medical examination, are found to be in impaired health. This practice opens up an extensive field for development. In particular, it affords opportunity for the physician to exercise his skill in appraising the life risks presented for his judgment.

ANNUITIES WITH PARTICIPATION

Within the last two years, an eminent actuary, not directly connected with any life insurance company, has urged that insurance companies operating on the mutual plan should allow annuity contracts to participate in the surplus that may be derived from the annuity business. He claims that the granting of participation would do much to popularize annuities and to enable them to render a more extensive service than is now the case. The problem is interesting, and has occasioned much discussion among the actuaries of the companies. As yet, it can hardly be stated that a final decision has been reached. It will, however, be of interest to review some of the non-technical aspects of the case.

In the first place, it is generally conceded that there is no sound reason why a company operating on the mutual plan should deprive

annuitants of any annuity surplus which can with safety and with satisfaction to the annuitants, be distributed among them. As a prerequisite, however, it is essential that annuity premiums should be adequate to meet all claims and expenses pertaining to the annuity group and at the same time to provide a reasonable margin of safety to guard against unforeseen contingencies. It is a sound principle that the annuitant group in an insurance company should be financially sufficient unto itself. Not to make adequate provision to that end, would be to inject an element of injustice into the operation of the company.

In order to compute annuity premiums, the companies adopt a conservative rate of interest and a mortality table that, so far as can be foreseen, will not *understate* the vitality of the annuitants. But in this choice of a conservative mortality table there is the difficulty that, with but slight exception, each successive annuitant table that has been published has indicated an improvement in the vitality of annuitants. It is doubtful, therefore, whether any existing table correctly measures the vitality of *future* annuitants. Since an improvement in the vitality of annuitants is a source of loss, it is of prime importance that a margin of safety be included in the annuity premium to guard against abnormal longevity.

One of the means by which this margin of safety may be obtained is through the assumption of a relatively low rate of interest, say $3\frac{1}{2}$ per cent, when in reality a higher rate, say $4\frac{1}{2}$ per cent, may reasonably be anticipated. No actuary would voluntarily choose this method for the scientific computation of the desired margin of safety. But he has been practically forced to adopt the method by the state laws which compel the computation of annuity reserves upon the basis of an interest rate not exceeding $3\frac{1}{2}$ per cent. This condition at once suggests that the laws should be changed and that the official valuation rate of interest should be increased. Undoubtedly this change would constitute a step in the right direction, since it would permit of the scientific computation of the margin of safety. Annuity premiums computed in this scientific manner would probably differ from the rates now in use, but it is doubtful whether the change would result in a *uniform lowering* of the premium. It would probably result in an increase at certain ages and a decrease at other ages, but in a manner such that the aggregate annuity premiums received by the

companies would differ but slightly from those now received. This belief is strengthened by the testimony of several companies who have carefully investigated their annuity experience, to the effect that through a series of years the gain arising from the realization of an actual interest rate considerably above that assumed in the premium computation, has been counterbalanced by a loss arising from the superior vitality of the annuitants.

Assuming, however, that sufficient interest surplus will arise from annuity contracts to justify their participation therein, in what manner shall the distribution be made? Since the annuity reserve upon which the interest is earned, decreases with the lapse of time, the interest surplus will, generally speaking, likewise decrease. A decreasing dividend, however, finds little favor with the public, and therefore it has been suggested that each surplus distribution should be translated into a uniform increase of the regular annuity payment rather than be paid in a cash sum. This suggestion is not impossible of application, but its complete consideration would lead us far afield into a maze of actuarial symbols.

Another problem still more puzzling than the most satisfactory manner of distributing interest surplus, is that pertaining to the distribution of any mortality surplus which may be realized. To whom shall mortality surplus be apportioned? Certainly the surplus has not been contributed by those who have lived. It has been contributed by those who have died prematurely. Should the distribution therefore be made to the living, or to the estates of the deceased? Each point of view has its advocates. Some argue that a distribution among the living annuitants will tend to popularize annuities, and they relegate to a minor position, the argument that the living annuitants are the very ones who have contributed nothing to the mortality gain. They further attempt to support their position by the pseudo-analogy from the realm of life insurance, that the losses arising from the excessive mortality among insurance policyholders fall upon the living who have not caused the loss. Others contend that, wherever possible, gains and losses should be allocated to the sources from which the gains or losses arise, and that therefore the annuitant who invests in an annuity and dies prematurely is entitled to have any resulting surplus returned to his estate.

Enough has been said to raise the question whether the dis-

tribution of surplus among annuitants would, after all, prove so satisfactory that annuities would greatly increase in popularity. But even if an entirely satisfactory method of distribution were available, the question at the present time is largely academic, since in most instances, the companies believe that their annuity premiums are barely more than adequate on the present basis. If they were to render their annuities participating, it is extremely doubtful whether they would do so without raising their rates.[2] And it may be seriously questioned whether the grant of participation, coupled with an increase in rates, would render annuities more attractive to the public.

It has been urged that if the companies would vigorously push the sale of annuities there would be less to fear from abnormal longevity of the annuitants. We have already made reference to the self-selection exercised by annuitants in their purchase of annuities, but it is undoubtedly true that if the annuity business could be greatly extended there would be less to fear from this self-selection and therefore less risk of adverse mortality experience. At the same time, vigorous endeavors to sell annuities involve larger commissions to the agent, and provision therefor must be included in the premium.

[2] For the benefit of the technical reader, the following table has been prepared showing the percentage return on annuities in the 15 American companies, taken from the former table on page 23, and also the return upon annuities computed on the following basis: (1) 4½ per cent interest, (2) McClintock Annuitant Tables modified on the select and ultimate principle by the percentages 30, 50, 65, 80 and 90, (3) loading 5 per cent of the gross rate. The net premiums on the above basis were obtained by a third-difference interpolation formula from the table on page 281, of Vol. 16, of the *Transactions of the Actuarial Society of America.*

	Males		Females	
Age	Average 15 companies,	McC. 4½% modified,	Average 15 companies,	McC 4½% modified
40	5.83%	6.47%	5.53%	5.98%
50	7.03	7.56	6.51	6.91
60	9.21	9.51	8.31	8.55
70	13.27	13.09	11.94	11.55
80	19.35	19.75	17.60	17.10

It is evident from this tabulation that the margin of safety in the premiums now in use by the companies is not excessive. Since the interest assumed in the computation of the specimen rates is 4½ per cent, the margin of safety depends almost entirely upon the precarious mortality element. It is not difficult to understand why the companies are loath to jeopardize that margin by granting participation without simultaneously increasing their rates.

In other words, the tendency toward a lowering of the premium might be largely offset by the provision for the larger commission required to popularize annuities, to such an extent that the mortality rate would be sensibly increased. The whole problem is complex, and the paths have been so little trodden that it is doubtful whether the companies will see their way clear to grant participating life annuity contracts. Their hesitation does not arise from any desire to deprive the annuitant of anything that is rightfully his. It is due to an honest doubt whether participation can, without loss, be granted under circumstances that will be of real benefit to the annuity business as a whole.

VARIATIONS OF THE REGULAR ANNUITY

Thus far we have confined our discussion to the regular life annuity. Before leaving the subject, however, mention should be made of the so-called "complete" annuity. Under the regular annuity, the last of the periodical payments is made on the regular payment date immediately preceding the death of the annuitant. Under the complete annuity, such proportion of the annuity payment as may have accrued up to the date of death is paid to the estate of the annuitant. This feature is included regularly in the annuities of but four of the large American companies, whereas it is very generally included in the annuities of British companies. Many annuitants prefer the complete annuity, since it provides a fund at death that will assist in the payment of indebtedness that may have been incurred subsequent to the last regular annuity payment. The complete feature increases the price of the annuity, particularly at the older ages, and in making comparison between the rates of different companies, care should be taken to investigate whether the annuities are alike in this respect.

Another variation of the regular annuity provides that if the annuitant dies before the annuity payments have amounted to the purchase price, the balance will be paid to the annuitant's estate. It follows, of course, that the premium for an annuity of this nature is greater than for an annuity without the return-premium feature.

THE JOINT LIFE ANNUITY

The joint life annuity is an extension of the annuity principle to cover a status involving the continuance of more than one life.

A typical illustration is that of an annuity payable as long as either a husband or wife shall live. In actual practice, annuities involving more than two lives are seldom issued, though the actuary is prepared to compute rates for practically any combination that may be devised.

THE DEFERRED ANNUITY

An annuity of much value is the deferred annuity. The first payment under this annuity is deferred for a period of years, say to the end of the annuitant's income-earning period. It may be purchased by a single premium or by a series of premiums. Upon the death of the annuitant the contract terminates. For an additional premium, provision may be made for the return, upon the death of the annuitant, of such part of the premiums as may not have been returned in annuity payments.

The deferred annuity is particularly adapted to men and women, without present or prospective dependents, who desire to provide during their income-earning period against possible dependency in old age. There is no more economical manner in which this provision may be made; though it is essential if there be dependents, that the deferred annuity should be supplemented by additional provision for their support. To meet this latter contingency, contracts involving both the annuity principle and the insurance principle have been developed.

THE REVERSIONARY ANNUITY

One of these combination contracts developed to meet the demand for a method of protecting a dependent in the event of the death of the breadwinner, is the reversionary annuity which provides for the payment of a life annuity to a beneficiary commencing upon the death of a designated person known as the insured.

For example, a son may employ the reversionary annuity to insure a life income to his mother, should she outlive him. The contract may be paid for by a single premium or by a limited number of annual premiums, continuing, however, only so long as the mother and son both live. Upon the death of the son, the annuity payments to the mother commence. Should the mother die before the son, the contract terminates and all premiums paid are forfeited.

Where there is a considerable difference in the ages of the insured and beneficiary, the reversionary annuity renders its greatest service, and under these circumstances it is well adapted to the protection of the older of the two lives in the event of the death of the younger. Where the ages are more nearly equal, however, or where the beneficiary is younger than the insured, the reversionary annuity possesses many weaknesses.

In the first place, it is the experience of all life insurance companies that the beneficiary originally designated under a contract is frequently not the beneficiary who finally receives the benefits under the contract. The original beneficiary may die and be replaced by another, or may be changed because of completely altered conditions. Under the reversionary annuity the beneficiary cannot be changed. If the original beneficiary dies, the contract falls, and another beneficiary cannot be substituted. The inconvenience caused by this condition is intensified by the fact that reversionary annuities are issued only upon medical examination of the person upon whose death the annuity is to commence. It is therefore impossible to enter into a new contract with a new beneficiary, without submitting again to medical examination; and it is obvious that the health of the insured may have deteriorated to such an extent that he will not be accepted by the company.

In the second place, the reversionary annuity fails to make adequate provision for dependents, as for example children who may be living at the death of the insured, but who were not included in the original contract. If a man should protect his wife by a reversionary annuity and upon his death should be survived by the widow and by one or more children, the children would receive benefit from the annuity, only during the lifetime of the mother since the payments would cease immediately upon her death.

In the third place, the reversionary annuity, as commonly issued, makes no provision for the old age of the insured himself. If a man should designate his wife as the beneficiary under a reversionary annuity, and should reach old age with insufficient resources to render him independent, his wife would suffer with him, since the annuity feature of the contract becomes operative only upon his death. This weakness of the reversionary annuity would be removed if, in addition to paying a life annuity to the beneficiary upon the death of the insured, the contract were enlarged by the

inclusion of a deferred annuity feature to provide for the payment of a life annuity to the insured to commence when he attains a given age, say age 60 or 65. But even with this enlargement, the contract would be weak in that the beneficiary could not be changed and in that those dependent upon the insured who were not beneficiaries under the contract would be left in a precarious condition upon the death of the insured.

In the fourth place, if it should be desired to terminate the contract the reversionary annuity possesses no cash surrender value.

THE MONTHLY INCOME POLICY

The analysis of the reversionary annuity leads to the consideration of a modified form of the same contract—the monthly income policy. The monthly income policy remedies in large measure the weakness discovered in the reversionary annuity. In the first place, the income payable upon the death of the insured under a monthly income policy is payable monthly for a fixed number of years certain and thereafter during the remaining lifetime of the beneficiary. By the phrase "fixed number of years certain" it is meant that when the income becomes payable by the death of the insured, the income during the so-called "period certain" is guaranteed irrespective of the life of the beneficiary. On this account, it is possible to change, *ad libitum*, the beneficiary who shall receive the "income certain"; and as the "period certain" is frequently twenty years, the privilege is a valuable one. The income payable after the expiration of the period certain is usually payable only during the lifetime of the beneficiary originally designated. The monthly income policy therefore solves in large degree, the difficulty inherent in the reversionary annuity contract, that the beneficiary cannot be changed. There still remains, however, the difficulty in changing the beneficiary who shall receive the life income after the period certain has expired.

Another immense improvement of the income policy upon the reversionary annuity is that it protects any children who may be living at the death of the insured. The fact that the income is payable certainly for say twenty years, insures that the children will receive an income until they have acquired an education and have become self-supporting.

Furthermore, the monthly income policy possesses a cash surrender value based upon insurance value of the income payable during the period certain; whereas, as we have noted, the reversionary annuity makes no provision for cash surrender.

The most complete form of monthly income policy adds to the one just described, a further provision under which the income commences upon the insured's living a specified number of years, or say to age 60 or 65. In this event, the income is paid to the insured during his remaining lifetime, and after his death to the beneficiary, with a guarantee, similar to the foregoing, that payments for a period certain will be made if both the insured and beneficiary die during the period. If the insured dies before the date when his income is due to commence, the income is paid to the beneficiary for life, with the guarantee of the income for a period certain. This contract is adapted to furnish complete protection to a husband and wife, and also protection, during minority, to any children living at the death of the insured or at the time the income to the insured commences.

The premium for each of these monthly income policies depends upon the age of the insured and of the beneficiary. If the policy is paid for by periodical premium payments, the additional premium charged for the life income to the beneficiary beyond the period certain, is discontinued upon the death of the beneficiary during the premium-paying period.

AN ILLUSTRATION

A concrete example will serve to illustrate the great service rendered by the last described monthly income policy. Take the case of a husband and wife aged 35 and 30 respectively. The first provision the husband desires to make is for the protection of his wife and children should he die prematurely, say before age 65. The policy therefore stipulates that if the insured dies within 30 years, a monthly income of say $50 will be paid to the widow as long as she shall live, with the guarantee that whether she lives or not, at least 240 monthly payments of $50 each—that is, $12,000 in all—will certainly be paid. This guarantee, covering the period certain, will furnish an income during the minority of any children living at the death of the insured. The second provision the husband desires to make is for a monthly income payable during the old age of

his wife and himself. The policy therefore stipulates that if the insured lives 30 years, a monthly income of $50 will thereafter be paid to him as long as he shall live and then upon his death to his wife as long as she shall live, with the same guarantee as before, that 240 monthly installments of $50 each will certainly be paid, whether or not the insured or his wife lives to receive them. According to the rates of a company which issues this policy, the annual premium therefor on the basis of a monthly income of $50 is $341.10. This premium is payable for 30 years, or until the prior death of the insured, and will be reduced each year by the annual distribution of surplus. If the beneficiary dies during the premium-paying period, the yearly premium will be reduced to $297.45, which in turn will be reduced as in the previous instance by the annual distribution of surplus.

THE MONTHLY INCOME OPTION IN MODERN LIFE INSURANCE POLICIES

The most flexible adaption of the annuity principle to the needs of the public is the provision in many life insurance policies whereby the proceeds of the policy, when the policy becomes a claim, may be paid to the beneficiary in the form of a monthly life income, the amount of which is determined by the age of the beneficiary at the time the proceeds of the policy become payable. There is usually a provision that the income shall continue for a period certain, say 10 or 20 years, whether or not the beneficiary lives to receive the income payments. The difference between this policy and the monthly income policy, is that the premium provides for the payment of a definite cash sum, which when it falls due may be applied to purchase a life income, the amount of which will depend upon the *then attained* age of the beneficiary, whereas the premium charged for the monthly income policy takes into account the age of the beneficiary *at the time the policy is issued* and provides for an income to the beneficiary of a fixed amount, without reference to the age attained by the beneficiary when the policy becomes a claim. The regular insurance policy admits of complete freedom as to change of beneficiary whereas, as we have seen, the monthly income policy, in this respect, is somewhat restricted.

The income provision, either in the monthly income policy or in the monthly income option, is one of the most important develop-

ments during recent years in the insurance field. The provision guarantees that the insurance money left to the beneficiary will actually accomplish what it is intended that it should accomplish. The life insurance companies know only too well how frequently the proceeds of policies are lost through unwise investment; how frequently the beneficiary becomes a prey of the speculator who paints glowing pictures of tremendous profits. The monthly income provision is an "insurance of the insurance." It renders certain that the prime object of the insurance will be realized, namely, the protection of the beneficiary after the death of the breadwinner.

CONCLUSION

The annuity principle is rapidly becoming more and more a vital factor in our social system. Whether it be purchased by a single premium and be in the form of an income to commence a month hence, or whether it be purchased by a series of yearly premiums and be in the form of a life income to commence upon the happening of some future contingency, as, for example, the death of the breadwinner, the annuity method is the surest method by which anyone can be provided with a guaranteed life income. Incidentally, it is the method which will provide the maximum guaranteed life income for the outlay of a given sum.

INSURANCE ON SUB-STANDARD LIVES

By Arthur Hunter, F.F.A., F.A.S.,

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Certain types of persons who apply to insurance companies are known as sub-standard, under-average, impaired, or invalid lives. These lives do not come up to the standard which is required by the companies to entitle the applicants to policies at the usual rate of premium under their regular forms of insu ance. It would be impossible to lay down an exact definition of a sub-standard risk, because one company with liberal methods of selection might accept an applicant as a standard life while another company with a stringent selection might treat him as a sub-standard risk, or decline to issue a policy. So far as each individual company is concerned, however, it may be said that a sub-standard risk is one on which a company has refused to grant a policy on any terms, has charged an extra premium, has advanced the age, has imposed a lien, or has otherwise adversely modified the usual terms of the contract. The great majority of companies either accept or decline an applicant for insurance, while a few insure a goodly proportion of the sub-standard lives under plans which suit the conditions and conform to the valuation placed on the risk by the medical department.

Types of Sub-Standard Lives

Sub-standard lives consist generally of the following:—

1. Persons who are suffering from a serious disease.
2. Persons who have had a history of a serious disease, or have had certain major operations.
3. Persons with an unfavorable physical condition, including those whose blood pressure or urine is abnormal.
4. Persons who in the past have had attacks of ailments not usually considered serious.
5. Persons who have had an unfavorable personal history of ailments not of major importance which may be liable to recur.
6. Persons whose habits as to alcohol have been bad in the past, who occasionally drink to excess, who have taken a cure for alcoholism, or who drink freely but not to the point of intoxication at the present time.

7. Persons with a short-lived family history, with a family history of some hereditary disease, or with a hereditary predisposition to a serious disease.
8. Persons whose build differs so much from the average that past experience warrants the expecting of a higher mortality among them. This covers persons who are overweight and those who are underweight.
9. Persons in hazardous or semi-hazardous occupations.
10. Persons living in unhealthy localities.

In the foregoing list would appear persons with such serious impairments that they would not be accepted by insurance companies on any terms. These generally consist of persons actively diseased, such as those now suffering with tuberculosis, cancer, or diabetes; also persons with serious forms of heart trouble.

The necessity for plans to meet the needs of sub-standard risks can be realized from the fact that 10 per cent of the applicants for insurance are not considered by the companies as standard lives.

HISTORY OF SUB-STANDARD INSURANCE

The necessity of providing insurance for sub-standard lives was early recognized, but it is only within very recent years that the necessary plans have been put into effect by strong companies in the United States to meet the needs of such risks. In 1865 the Universal Insurance Company, a New York corporation, was stated by Elizur Wright, the Insurance Commissioner of Massachusetts, to have plans for insuring at advanced rates the lives rejected by other offices. About the same time other companies made the same announcement, but neither they nor the Universal succeeded in making a success of that business; in fact, every company failed which engaged in the insuring of under-average lives in these early days of life insurance. In 1892 the Life Insurance Clearing Company of St. Paul was organized for the insurance of sub-standard lives exclusively, but after a brief existence it was reinsured. Its plans were not attractive. Another company, the Security Trust Company, was organized in Philadelphia in 1896, and obtained considerable "rejected" business from the agents of other companies. It is needless to take up the reasons for its lack of financial success; suffice to say that it also had to be reinsured.

The first successful attempt in this country to do under-average business was made by the New York Life Insurance Company in 1896. At the end of twenty years it has over $300,000,000 of such

business on its books, and has paid over $40,000,000 in death losses. The Equitable Life Assurance Society also undertakes this form of insurance, and has over seventy millions of this business in force. Another company which does both industrial and ordinary business had about forty millions of insurance in force in its under-average class, in addition to a considerable amount of business on lives in semi-hazardous occupations which were placed in the intermediate class. Other companies, not so large as these three, have also plans for granting insurance to sub-standard lives. In Great Britain several of the early endeavors to treat impaired lives equitably met with success, so that there are a number of companies which have carried on that business many years, one company for more than ninety years.

THE NEED FOR EQUITABLE PLANS

The foregoing figures indicate that the need for this kind of insurance is very great. A conservative measure may be obtained by assuming that 5 per cent of all the applications for insurance are declined by companies, and could safely be covered under sub-standard policies. This would mean that during the year 1916 applications for about $115,000,000 of insurance had been refused protection during that year.

An idea may be obtained of the types of risks which are received by a company transacting sub-standard business from the following table, in which the cases appear according to their importance:

Overweight
Tuberculosis in family history
Albumin, intermittent or constant
Heart murmur
Underweight at young ages
Occasional alcoholic excesses
History of cured tuberculosis, blood spitting, consolidation of lungs, etc.
History of inflammatory rheumatism
History of renal colic, gravel, hepatic colic, gall stones, etc.
Fragile, not robust, anaemic
History of malarial fever, or chills and fever
History of gastritis, or catarrh of stomach
Irregular pulse
Sugar, intermittent or constant
Goitre
Rapid pulse
History of syphilis

In addition to the foregoing, and more numerous than any of these types, are occupations involving hazard, such as electricians handling live wires, saloon keepers, firemen in city departments, locomotive engineers on railroads, employes in gunpowder plants, grinders of glass, underground coal miners, stone cutters, and workers in compressed air.

While it is evident that persons coming within the foregoing classes are fully as much in need of insurance as standard lives, plans which would be fair to the policyholders and to the company were developed very slowly. As already pointed out, it was thirty years after the first unsuccessful attempt to insure under-average lives before a large company undertook such business. This was not due to any lack of enterprise on the part of American insurance men, but to the great difficulties in the way, and to the apprehension of failure based upon the history of other companies. The main difficulty was to find reliable mortality bases, which entailed a knowledge of the mortality under the numerous types of under-average lives. If the companies had been confronted with a few main types, without any complications, such as persons with albuminuria, mitral regurgitant heart murmur, or glycosuria, the difficulties would have been much more readily solved. Frequently, however, there were other defects in addition to the principal impairment. So far as preparing the actuarial plans for meeting the extra hazard, there has been sufficient knowledge on this point for the last forty years, but there has been very little available material until recent years with regard to the relative mortality among the various groups of impaired lives. Most of the available material until a few years ago was based on English statistics, and these were scanty in volume.

BASES OF STATISTICS

The first successful attempt in this country to obtain satisfactory statistics was made by Dr. Oscar H. Rogers, who investigated the mortality among the declined cases of the New York Life Insurance Company. These investigations were commenced in 1893, the records of the declined cases for the preceding twenty years being completed by means of correspondence with agents, with friends, and with salaried employes of the company. The date of death was obtained and also a record of the last date on

which the applicant was known to be living. With regard to the cases which could not be traced, it was assumed that there would be a death rate among them three times as great as among the cases whose records had been obtained. It was recognized, however, that because of the different conditions, there might be a different incidence in mortality among the policyholders to whom sub-standard contracts are issued than among the declined cases. For example, among the declined applicants all those who were refused insurance because of drinking occasionally to excess would be under observation, except those who had moved to an unknown address. On the other hand, the persons to whom sub-standard policies were offered had the right either to accept or to refuse to take them. If the applicant thought the company was too severe with him he would be inclined to refuse, while if he felt that he was obtaining a liberal policy from the company he would surely accept. As a result, there would be a selection against the company by reason of the poorer grade of risks taking the offers of the insurance company. A similar condition may be noted in the case of companies which accepted certain "border-line" risks on their regular plans and found by experience that these risks should have been granted sub-standard policies. Most of these types were considered doubtful by the companies, and, accordingly, a very strict selection was maintained when they were accepted as standard lives; that is to say, only one out of every five might have been granted a policy, and therefore only the best of each type was accepted. When suitable provisions are made for meeting the extra mortality there need not be so strict a selection, and in that event the group of sub-standard lives would not prove to be so high grade outside of the impairment in question as those accepted as standard risks.

The statistics giving the relative mortality among the various types of under-average risks are generally taken from the following sources:

(a) The unpublished experience of individual companies;
(b) The Specialized Mortality Investigation;
(c) The Medico-Actuarial Mortality Investigation;
(d) The papers appearing in (1) the *Transactions of the Actuarial Society of America;* (2) the *Proceedings of the Association of Life Insurance Medical Directors;* (3) the *Journal of the Institute of Actuaries;* (4) the *Transactions of the Faculty of Actuaries,* and the published accounts of other scientific bodies.

At this point a word should be said with regard to the Medico-Actuarial Mortality Investigation. That investigation was conducted by a committee composed of members of the Actuarial Society of America and the Association of Life Insurance Medical Directors. The data were contributed by forty-three American and Canadian life insurance companies, and covered a period of about twenty-four years (1885 to 1909) on about two million lives. The report of the committee appears in five volumes, and covers the relative mortality in ninety-seven classes of occupation and forty-eight types of medical impairment. It also contains data relating to the influence of build on mortality, new tables of height and weight, standard tables of cause of death, relative mortality in the southern states, an extensive study of the effect of alcohol on longevity, the influence of a family history of tuberculosis, and the experience of the companies in four groups of women. These reports are invaluable in assisting the companies to determine whether a risk is standard or sub-standard. They also enable experts to determine approximately the extra mortality which should be anticipated on many types of under-average lives.

METHOD OF EXPRESSING THE RELATIVE MORTALITY

In expressing the relative mortality the general practice is to use the proportion which the mortality in the class or group bears to the mortality among a corresponding group of standard lives. In the Medico-Actuarial Mortality Investigation, for example, the mortality experienced by the companies among *standard* lives was obtained for the various policy years under groups of ages at entry. The "expected" deaths in the various classes or groups were then calculated by multiplying the "exposed to risk of death" by these sets of mortality ratios. These "expected" deaths represent the approximate number which would have died if all the lives had been standard. The number of "actual" deaths occurring in the sub-standard class under investigation is then ascertained, and the proportion which they bear to the number of deaths by the standard table is the measure of the relative mortality. For example, if there were 300 "actual" deaths among a class of persons who had a mild type of heart murmur, and if the "expected" deaths according to the experience on a corresponding body of standard lives would have been 200, then the ratio of actual to expected deaths, or the

relative mortality, would be 150 per cent,—*i.e.*, 50 per cent in excess of the standard or of the normal.

PLANS FOR INSURANCE OF SUB-STANDARD LIVES

There are three requisites for a satisfactory plan of meeting the extra mortality on sub-standard risks:

1. It must be equitable to the sub-standard policyholders, and not a burden on the standard policyholders, or on the company as a whole.
2. It must be attractive to the applicants,—that is, the policies must be saleable.
3. It should be equitable as between the different types of sub-standard lives.

The principal plans on which sub-standard risks are accepted are:

1. A lien is imposed on the policy, thereby reducing the face of the policy at death, and such lien is generally reducible by the premiums paid from year to year.
2. An extra premium is charged.
3. The premium is charged at an advanced age instead of at the true age.
4. The policy is placed in a special class as to surplus or dividend.

In addition to the foregoing, policies have been issued on the double endowment plan or on modifications of it. Under double endowment policies a short period of years is selected, usually twenty years, during which if the insured dies his heirs receive one-half of the amount payable at the end of the twenty years. It is equivalent to an insured buying a pure endowment policy of $2,000 payable twenty years hence if he should live, with a term insurance policy of $1,000 payable if he should die during the twenty years. The premium varies very little by age, so that whether an applicant is aged fifteen or fifty-five at entry, the rates are nearly the same. This is accordingly equivalent to assuming that a mortality similar to that experienced at age fifty-five at entry may be borne on a young man of say fifteen. The principal disadvantage of this form is that the premiums paid considerably exceed the amount payable in event of death during the later policy years.

A few companies in Great Britain issue policies without medical examination, but a reduced amount of insurance is paid in the early policy years. This is a modification of the lien system.

LIEN SYSTEM

Under the lien plan the amount of insurance payable at death generally increases with the age of the policy until it equals the face thereof. A notable exception to this rule was made in the case of the Life Insurance Clearing Company of St. Paul, which had a lien increasing with the advancing age of the insured. It was assumed that the dividends would be so large that they would not only offset the increase in lien, but rapidly result in its elimination. The expectation of the founders of the company was not realized. A plan which depends so largely on the dividends of the future does not deserve to be popular.

There are many different kinds of liens. One company, for example, had liens from $200 to $900 per thousand, reducible by the premiums paid, the amount of the lien depending upon the degree of impairment. Another company imposed liens the initial amount of which represented its published single premiums for the whole of life and for ten, fifteen and twenty year endowment insurance. To make this lien method clear an example may be given. If the lien were $500 per thousand and the annual premium $30 per thousand, the insurance payable in the event of death in the first year would be $530, in the second year $560, in the third year $590, etc., until in the seventeenth year and thereafter $1,000 would be due at death. Such a form of policy appeals to many applicants, because if they prove to be poor risks and die in the early policy years, their beneficiaries will receive a good return for the premium paid, notwithstanding the lien; whereas, if the insured outlives the period in which the lien is charged, they are not adversely affected by it.

The lien may be reduced by any other sum than the amount of the annual premium, but the annual premium has generally been used in the United States and Canada on the ground of simplicity. In Great Britain it is a common practice to impose a lien for a period equal to the expectation of life, reducing it by equal annual payments during that period.

The premium charged for a lien policy is the same as that for a standard policy, it being considered that the extra mortality will be met by the lien.

When it is expected that the relative mortality in any group will be heaviest in the early years following issue, and that it will

thereafter become normal, the lien system is very satisfactory from the standpoint of the company. Where, however, the *extra* mortality is constant or where it tends to increase with advancing age, the company is not so well protected. The extra mortality covered by means of liens is not so large as is popularly supposed. This is apparent when it is realized that the value of the lien is equivalent to the value of temporary insurance for the difference between the face amount and the sum payable at death.

When there is a variety of liens at each age, the question of reserves and of surrender values is a complicated one, because the reserve varies with each form of lien and with the mortality table corresponding to the anticipated mortality in the group. For example, if a $500 lien per thousand is imposed upon applicants who are expected to have a mortality of 150 per cent (50 per cent in excess of the normal), the reserve on an ordinary life plan would be different to those under policies where the liens were $700 per thousand and a mortality of 175 per cent was expected. As, however, the various states allow a deduction from the reserve in determining the surrender value, it is not necessary to calculate a different set of such values for the various liens, because the difference may be absorbed in the surrender charge,—*i.e.*, under one lien the surrender charge might be $10, and in another $12, due to the difference in the reserves under the policies. The term extension feature is generally omitted from policies on highly impaired risks.

POLICIES WITH EXTRA PREMIUMS

An extra premium may be charged throughout the life of the policy or for a few years only. It is customary to charge these extra premiums for hazardous occupations in which the additional mortality is due to accident. For example, underground miners may be charged an extra of $5 per thousand irrespective of their age, on the assumption that the hazard of occupation is approximately constant with age.

The extra premium may be calculated so as to cover the anticipated extra mortality only, or it may provide for commissions and for dividends. In cases of change of occupation the extra premium is usually removed after a probationary period on satisfactory evidence of insurability. It is not customary to increase the surrender values on account of the extra premiums. The reserve

carried by the company at the end of the calendar year (middle of the policy year on the average) is usually one-half the extra premium for the current year in addition to the regular reserve.

Where the extra hazard is temporary, such as in the case of a history of appendicitis or of certain forms of ulcer without operation, the extra premium is charged during the years in which the disease is likely to recur.

ADVANCE IN AGE

Under the plan of advancing the age the policyholder is usually treated in all respects as of the advanced age. If, for example, he were thirty-five years of age and by reason of impairment was considered as ten years older, then he would receive a policy with premium, surrender values, non-forfeiture features and dividends as of age forty-five. For reserve purposes the policy would be carried on the books of the company as though the true age were forty-five.

In determining the advance in age to meet the extra risk on a sub-standard life one must first know what extra mortality is to be provided for. If for example, a person age thirty applies for an ordinary life policy and it is expected that the mortality to be met on a group of similar lives will be 200 per cent of the normal, it is assumed that the probability of dying in any year is twice the normal or standard. We first calculate the premium at age thirty for an ordinary life policy on a mortality table with double mortality rates. It is then compared with the premiums for ordinary life policies at normal mortality rates, and the premium which most nearly approximates to the premium at age thirty on the double mortality table is recorded; the difference between age thirty and the age to which this premium applies gives the advance in age. These calculations are based on net premiums as distinguished from gross premiums. This advance in age is then charged on gross premiums thus providing for increased dividends and surrender values over the normal age. Should it be desired to charge extra premiums instead of an advance in age the practice is generally to take a percentage of the extra charge determined by the advance in age method.

The above method is adopted in one large company, but there are other plans for calculating extra premiums and advances in age.

SPECIAL CLASSES FOR SUB-STANDARD RISKS

Prior to 1907 several companies had special classes in which the dividends were deferred for periods of fifteen or twenty years. At the end of that time the mortality experienced in the class for under-average lives was taken into account in determining the accumulated dividends then payable. In one large company there were two classes for sub-standard lives,—one for those slightly under average, and the other for those more seriously impaired. In the latter class liens were also imposed to provide for the highly impaired risks. In another company special dividend classes were made for those in hazardous occupations, such as liquor dealers and railroad men. So far as can be ascertained, the dividends in these special classes range from 50 per cent to 90 per cent of the dividends under corresponding policies in the regular class. If the lives are reasonably homogeneous, this is an equitable practice, but it can no longer be employed to advantage by companies operating in New York State. While it is theoretically possible to have a special class in connection with annual dividends, no company of prominence has attempted to create it, on account of the practical difficulties. It can easily be seen that the annual dividends might be subject to violent fluctuations, and that the company would be open to misunderstanding by a comparison of the dividends in its sub-standard class with dividends in another company in its standard or regular class.

NUMERICAL RATING OF RISKS

One of the requisites to successfully conducting an under-average business is a means of expressing the relative mortality. The medical director, the actuary and other officers of the company must be able to speak a common language in this matter. As already pointed out, the practice has arisen within recent years of showing the relative mortality to a standard which is assumed to be 100 per cent, so that 200 per cent means double the normal mortality of the company, or 100 per cent additional mortality. One of the larger insurance companies, in order to facilitate the handling of its under-average business, has developed a system of numerical values for the various factors entering into the composition of a risk. The applicant is given credits or debits, depending upon

favorable or unfavorable features. Take, for example, a farmer who is slightly over the average weight, and has a good family history, but albumin has been found on examination. Basing the credits and debits on the company's own mortality experience, or on the results of published mortality investigations, the company might add ten points for overweight and fifty points for albuminuria, subtract fifteen points for favorable occupation and ten points for a good family history. This would be a net addition of thirty-five points to the basic rating of one hundred, so that he would then be considered as belonging to a group of persons having 135 per cent mortality,—or 35 per cent in excess of the normal.

The foregoing system has its limitations and must be applied with good judgment. It does away with personal bias on the part of the official who passes on the risks, and is an excellent guide for him in determining how each case should be treated.

BORDER-LINE RISKS

Applicants for life insurance may be divided into three groups: (a) those who are surely standard risks; (b) those who are surely sub-standard risks, and should either be declined or charged an extra premium, or have the policy modified in some way; and (c) border-line risks. If a committee of medical directors were appointed to pass on one thousand cases, it is probable that they would agree on 90 per cent being placed in either group (a) or group (b); while if the medical directors of one company passed on these risks, there probably would not be a difference of opinion with regard to these groups in more than 2 per cent of the cases. It naturally follows that among the 10 per cent upon which the medical directors of the various companies would differ there would be a proportion of these border-line cases which would be treated as standard by some companies, and a percentage which would be considered as sub-standard. The difference in opinion among the medical directors is partly due to their interpretation of the existing statistics, partly to the experience of their own company which may have differed from the results of the Medico-Actuarial Mortality Investigation, and partly to their individual experience. It is well known, for example, that some companies have had either a better or a worse experience than that shown in certain classes of the Medico-Actuarial Investigation because their selection was

more or less severe than that practiced by the average company. An endeavor is being made by the Actuarial Society of America and by the Association of Life Insurance Medical Directors to lessen the percentage of cases on which the companies differ in their treatment. The combined wisdom and knowledge of a group of actuaries and medical directors would be better than the opinion of a single man in either of these professions, however able he may be, and it is hoped to give to all companies the benefit of the opinions of these men. A committee of the two societies is studying all the available statistics, and is having put at its disposal the unpublished experience of many of the largest companies in the country. With this knowledge, much of which has hitherto not been available to the insurance profession, the joint committee may be in a position to publish information which will result in fewer differences of opinion on border-line risks. The sole function of the committee is to obtain information which would be of assistance to the companies, and there is no intention, by moral suasion or otherwise, to induce the companies to change their practice. Experience has shown that if new light is supplied to the companies they are glad to make intelligent use of it.

SELECTION OF RISKS

In selecting risks, other knowledge is necessary than that of medicine. In nearly all companies there is a committee of review which assists the medical department in determining the insurability of certain types of risks. On the committee there is usually a medical director, an actuary, a secretary or other executive officer, and a member of the agency department. That committee considers such questions as (1) the amount which should be taken on a risk; (2) the moral hazard, including the finances of the applicant; and (3) the probable selection against the company. In order to do its work properly, the members of the committee must have a knowledge of the experience of the company with regard to its mortality on policies for large amounts, on women, on persons in hazardous occupations, on border-line risks, and, in fact, on all matters which are not purely medical. The phrase "moral hazard" is used in a special sense in insurance companies; for example, it would be considered a moral hazard if insurance were applied for on an elderly woman without dependents, the sons being the payers of

the premium and the beneficiaries under the policy. Such cases may be declined, or accepted for a small amount of insurance under a sub-standard plan, as a group of such cases would undoubtedly show a higher mortality than the normal, a certain proportion being of a speculative nature on risks below the average for reasons which were not apparent to the medical examiner.

SELECTION AGAINST THE COMPANY BY SUB-STANDARD LIVES

In preparing plans for sub-standard lives the psychology of applicants should be considered carefully. There is known to be selection either in favor of, or against the company which has a material effect on the mortality. It has been proved, for example, that the applicants who apply for endowment policies, and are found to be standard risks, are much better risks than those who take ordinary life policies. This is undoubtedly due to the fact that those who apply for endowment insurance expect to live until the end of the period, usually twenty years, to receive the endowment, —otherwise they would ask for cheaper forms of policy. The companies, therefore, get the benefit of the opinion of the insured with regard to his longevity, in addition to the expert judgment of the medical examiner.

The effect of selection has also been noted in the under-average field. A group of applicants who have liens placed against them would be partly influenced in taking their policies, by their own opinion regarding their prospects of longevity. If they expected to outlive the lien they would be inclined to accept the policy offered by the company; while a goodly proportion of those who did not expect to live a long life would refuse to accept such policies and would prefer to go to other companies which charged an extra premium. When a heavy extra premium is charged, the tendency is for the better grade of risks to decline to take the insurance, while the poorer grade of the same type accept. This was shown in the experience of a large company, which found a mortality lower than expected among highly impaired risks under policies with a heavy lien, and a higher mortality than expected among a similar group issued in later years when the company charged an extra premium because the lien system could no longer be applied.

Another type of selection which may be noted is that of an applicant who has been declined by a company and who applies to

another company which grants sub-standard insurance. If he feels that he is not in good condition he will naturally try to get as much insurance as he can carry, with the expectation of cancelling part of it at a later date. A company, therefore, must be on its guard against anti-selection of this nature.

TREATMENT OF SUB-STANDARD LIVES WHICH IMPROVE IN HEALTH

One of the difficult questions to solve is what should be the treatment of under-average lives which improve in health. It should be remembered that if a mortality of say 200 per cent is assumed for any group and if the best risks are gradually taken out, leaving those who have not improved or who have actually deteriorated, the mortality is likely to be higher than 200 per cent. Either of two methods of meeting the problem may be adopted. First, in determining the expected mortality an addition may be made to cover granting better policies to all the risks which improve. Second, in providing for the expected mortality a slight provision only is made so as to give the privilege of a better form of policy during a short period, not exceeding say three years. The difficulty under the first method is that the class would likely deteriorate rapidly if the agents made a practice of canvassing the policyholders periodically to find out whether they had improved or not. In some cases this improvement might only be temporary, but the company would not have the privilege of again treating them as sub-standard. While it is technically correct to treat sub-standard risks in this manner, I do not know of any company which pursues this course because of the practical difficulties. With regard to the second method, it is quite common to allow a change to be made during the first two or three years, no change to be made thereafter. The disadvantages of refusing to grant standard forms of policy after a reasonable period is that agents induce a number of the best lives to surrender their contracts.

ADVANTAGES TO AGENTS OF SUB-STANDARD BUSINESS

In determining whether a company should take sub-standard lives or not, the officers have to consider several matters: (a) whether they wish to have a stringent selection with a low mortality; or (b) a liberal selection with a somewhat higher mortality.

As competition is so largely concerned with the question of dividends, the tendency would be towards adopting (a). The agents may be afraid that the adoption of under-average plans would result in many cases being treated as sub-standard which were formerly accepted as standard. It is inevitable that this would be true in a small proportion of the cases. When there is no sub-standard class there is a natural tendency to be lenient with border-line and slightly impaired lives because the company has no alternative but to accept, or decline to issue a policy. Greater justice, however, is done when there is a means of handling these border-line or sub-standard cases according to their merits. While the agents may lose a small percentage of the business by reason of having treated as sub-standard a few types which were formerly accepted as standard, they have, on the other hand, a great advantage from receiving policies on many cases which were formerly declined. If they can place even one-half of the cases issued on under-average plans, the saving in commissions thus effected is very much greater than the loss resulting from placing in the sub-standard class the few border-line or sub-standard cases formerly accepted as standard. Furthermore, the field of operation is greatly enlarged because the agents can canvass actively among border-line or sub-standard risks, whereas they were formerly limited to cases which appeared to be standard and entailed no material hazard from occupation.

CONCLUSION

While many companies have the desire to extend the benefits of life insurance to sub-standard risks, and while many of their officers recognize that they are not doing their full duty to the public by refusing to grant policies to sub-standard lives, it is rather a dangerous experiment for new or small companies. Notwithstanding the large amount of data published in recent years, it is necessary to have considerable knowledge, skill and experience to handle sub-standard business successfully. The increasing knowledge with regard to mortality is resulting in greater justice being done to individual lives as the outcome of the ability to differentiate between the various grades, and to grant under-average risk policies which are fair to the applicants and equitable to the company.

THE PROBLEM OF CASH SURRENDER VALUES AND CASH LOANS

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Surrender Values

The granting of cash surrender values and loans from reserves is developing into a serious problem for life insurance companies.

Originally the surrender value of a lapsed or forfeited policy was granted in the form of paid-up or extended insurance. It was thus limited on the theory that the policy was not a banking contract, that the retiring policyholder having made a contract for insurance, his reserve should only be applied in the form of insurance.

In time the abandonment of this theory was forced by competition and the practice of paying surrender values in cash became common. In 1906 this privilege was made a statutory requirement in the new Insurance Law of the State of New York. For the ten years following 1905, the proportion of cash payments to the reserves on the policies surrendered increased 42 per cent.

The right of the deserting policyholder to withdraw the reserve on his policy minus a reasonable surrender charge cannot be questioned. The weakness of the present method of expressing this right lies in the fact that the privilege of taking cash instead of paid-up or extended insurance reverses the original purpose of the contract and often encourages needless lapsing. This privilege has tempted many policyholders to unnecessarily surrender their policies to secure ready cash which has resulted in the loss of a great volume of valuable insurance protection.

While the return to the original practice of giving paid-up or extended insurance in place of cash for surrendered policies may be classed among the impossibilities, there is a phase of the application of the present plan which demands, and it is hoped may receive, remedial action, namely, the question of the surrender charge.

The New York Laws of 1906, under which the bulk of American life insurance is written, and which have been copied in many states, provide that the entire reserve less one-fifth or the sum of two and

fifty one-hundredth dollars for each one hundred dollars of insurance shall, upon demand not later than three months after the date of lapse or surrender of the policy, be applied as a surrender value as agreed upon in the policy. While this law defines the minimum of the reserve which shall be paid or applied to surrender values, which consist of cash values, paid-up insurance or extended insurance, in practice this minimum is exceeded. Nearly every company allows the *entire* reserve as a surrender value in cash, or its equivalent in paid-up insurance, after the tenth year of insurance, and deducts less than the surrender charge allowed by the law in the early policy years. It is perhaps in the increase of cash surrender values and in reducing the intervals or periods at which they may be taken that the competitive concessions found their most questionable expression during the period between 1880 and 1905. In 1880 very few companies guaranteed cash values at all. Later certain companies adopted values payable at the end of each fifth year of insurance, but by degrees, under the force of competition, annual values became general and then the amounts of the values were gradually increased until guarantees equal to the full reserve were reached and competition could go no further. The effect of this was to emphasize the importance of the individual policy—displacing the principle which regarded the interests of the whole body of the insured to be paramount to those of the individual.

The old-fashioned notion was that each retiring policyholder—each deserter from the ranks as it were—should pay a proper surrender charge as a *quid pro quo* for the loss sustained by the whole body of policyholders through his retirement. While the 1906 law allows a surrender charge there is nothing in it forbidding the companies to waive such charge, hence we find that certain companies are paying the full reserve after the policy has been in force for only a few years; in two or three companies after only three years. In other words, the law protects the deserter by stipulating that he must be paid certain minimum values but fails utterly to act in the interests of the whole body of policyholders by prohibiting larger payments to the deserter than he is in equity entitled to receive.

Herein is the defect in the law. It should define a surrender charge adjusted to the kind and age of the policy; and then provide that no company shall guarantee in its policies, or pay in practice, a larger cash value than the reserve less such surrender charge.

If a surrender charge should be imposed in all cases when cash is taken, the amount of such charge could be used to replace the retiring policyholder without casting the burden of cost on the persistent policyholders. If need be it could be used as a compensation for a decline in values, unexpectedly high mortality, or other contingencies.

Undoubtedly the cash value privilege is a great help in times of emergency, and it must be conceded that sometimes it is very important to protect the insured and his family while the insured is living. But no policyholder should be permitted to retire and withdraw his entire equity in reserves, thereby transferring his share of any depreciation or other unfavorable contingency to those who remain.

POLICY LOANS

The policyholder's privilege of borrowing a portion of his reserves on the security of his insurance contract was also a development of competition, and like the giving of surrender values, the idea grew and the original privilege was extended until the plan became permanently fixed upon the business by being made a requirement of the law.

As originally intended, this privilege would have been a great service to the policyholder and to the companies as an attractive feature or inducement to insure, but, as in the case of surrender values, the loan privilege has been carried to extremes, the general practice now being to loan, as well as to pay as a cash value, *the full reserve* upon a policy after the tenth year of insurance.

The standard contract provisions required by Section 101 of the New York Laws requires in each contract a provision relating to policy loans which is described as follows:

> A provision that after three full years' premiums have been paid, the company at any time, while the policy is in force, will advance, on proper assignment or pledge of the policy and on the sole security thereof, at a specified rate of interest, a sum equal to, or at the option of the owner of the policy less than the reserve at the end of the current policy year on the policy and on any dividend additions thereto, less a sum not more than 2½ percentum of the amount insured by the policy and of any dividend additions thereto; and that the company will deduct from such loan value any existing indebtedness on the policy and any unpaid balance of the premium for the current policy year, and may collect interest in advance on the loan to the end of the current policy year; which provision may further provide

that such loan may be deferred for not exceeding six months after the application therefor is made. A company may, in lieu of the provision hereinabove permitted for the deduction from a loan on the policy of a sum not more than 2½ percentum of the amount insured by the policy and of any dividend additions thereto, insert in the policy a provision that one-fifth of the entire reserve may be deducted in case of a loan under the policy, or may provide therein that the deduction may be the said 2½ percentum or the one-fifth of the said entire reserve at the option of the company.

The primary purpose of this law, which fastens a banking function upon life insurance, was to enable the policyholder to have the use of his reserves in time of financial stress. It was believed that this would be of great value in preventing lapses by permitting the insured to apply his reserves to the payment of premiums when short of cash, and that the plan in general would prove an attractive one as an inducement to the taking of insurance.

These advantages are freely conceded, but experience has demonstrated that they have been largely neutralized by the disadvantages and the abuses which have resulted from the expansion of this loan privilege. These loans operate directly against the beneficiary by reducing the protection, for only a small per cent of the loans are repaid by the borrowers and the rest must be deducted from the claims at death or from surrender values. They also encourage lapsing by the additional burden placed upon the policyholder. Many borrowers, finding their protection reduced, their premiums remaining the same and an annual interest charge to pay, become discouraged and lapse or abandon their policies. An injustice is also done the remaining policyholders by the low withdrawal charge and the possible danger of a "run" on reserves in time of panic. Broadly speaking, the policy loan privilege discourages saving and encourages spending. This fact is emphasized by the extraordinary increase in the diversion of policy reserves from their original purpose during recent years.

The magnitude of the problem which has resulted from this unwisely extended privilege may be appreciated by a study of the following table which shows the extent to which these reserve funds have been withdrawn from the American "old line" companies since 1890:

YEAR	RESERVES	POLICY LOANS	RATIO OF LOANS TO RESERVES
1890	$669,963,688	$19,903,242	2.97%
1895	980,248,946	35,524,530	3.62%
1900	1,443,452,319	88,500,575	6.13%
1905	2,295,289,818	225,568,149	9.83%
1910	3,225,966,060	495,099,854	15.35%
1915	4,362,255,809	779,158,909	17.86%

Those who borrow on their policies are not satisfied with small amounts. They are tempted to withdraw all the money they can get, and, having gotten it, they are tempted to spend it for pleasure or to risk it in business or speculative ventures. The result is that a temporary loan develops into a permanent obligation, and the idea of repaying it is abandoned. Consequently when death comes the widow finds that her life insurance has been materially reduced and then bitter disappointment and sometimes misery and hardship follow.

It is not surprising, therefore, that the practice of borrowing on policies has come to be known as borrowing from the widow and orphan. No concession ever granted to policyholders has operated so greatly to the disadvantage of beneficiaries. This is particularly true when the loans are taken with the assistance of the Change of Beneficiary Clause, whereby the wife of the insured is too frequently denied a knowledge of the transaction. In two companies, at least in the case of policies drawn in favor of the wife, unless the insured insists upon his privileges under the Change of Beneficiary Clause, an effort is made to obtain the wife's signature to the loan papers. It is surprising how often the mortage of a policy is thus avoided.

One class of loans—those taken out on policies issued for the protection of business ventures or for purely commercial purposes—are justifiable; they are serving a purpose for which the contract was entered into. But one cannot view with equanimity the taking of loans on policies issued for family protection, and unfortunately the greater number of loans are taken on this class of policies.

If those who have it within their power to make and amend laws could know the disappointment incident to policy loans and the hardships which are often inflicted on the insured himself, they would find sufficient reason in these disappointments alone to amend this section so that loans would be mandatory *only for the purpose*

of paying premiums, leaving the question of an additional loan to the judgment of the officers of the companies, but stipulating that the total loan shall in no case exceed the cash value which should be on a reduced basis.

In foreign countries where life insurance has been practiced longer than here underwriters have prudently abstained from following our lead with respect to maximum cash values, although they have adopted several of our American innovations. In a review of the cash surrender values offered by the English companies, it was found that in the case of thirty-nine the cash values range from 25 per cent to 50 per cent of the premiums paid. The values for all ordinary durations of insurance are very much below the reserves held under the policies. In general the values are fully 20 per cent lower than in this country.

The English companies also grant policy loans and the prospectuses of the companies show that the loans are limited to the cash surrender values, which as above stated, are always well within the reserves. The policy of one company contains a rather unique provision to the effect that in case the rate of discount in the Bank of England is 7 per cent or more at the time the cash value is applied for, the directors may either pay a reduced value or defer payment until the rate falls below 7 per cent. That the person who drafted this condition possesses amongst his other traits that of perspicacity is only too well evidenced by the present distressing war conditions on the other side of the sea.

In France the policies of the leading companies provide for cash values, but the amounts instead of being specified in the contracts are subject to the rules of the Board of Directors at the time of surrender. Excepting in the case of one company, the values at no time exceed 85 per cent of the reserves, closely following the English practice. Again in France, as in England, loans are made up to an amount not exceeding 95 per cent of the cash value. One of the French companies provides a check against declining values in securities by stipulating that in case French rentes are quoted below 90 the cash values may be reduced.

From this statement of foreign practice it will be seen that in granting cash values and policy loans, both the English and French companies are far more conservative than the American companies, avoiding extreme liberality and safeguarding the interests of their

policyholders as a body by keeping their payments to those who borrow money or retire from the company fairly within the reserves.

Another point with respect to cash values and policy loans which we must consider is that the investments of the life insurance companies are made with regard to the maturity of the policy contracts and the continuance of the business under normal conditions. The two most common forms of investment, therefore, are mortgages and long-time bonds. When money is easy and there is an active investment market, it is possible to realize upon bonds, or to collect a part at least of the mortgages which mature. On the other hand, under unfavorable conditions these two classes of securities are anything but liquid. Consequently it follows that if unduly liberal cash values and policy loans are to continue to be a feature of policy contracts the life insurance companies will eventually be required to make short-time or call loans. These forms of investment are now practically denied to life insurance companies.

At present there are apparently only two ways by which the companies can protect themselves against the possibility of a long continued drain if one should occur in the years to come. One is by carrying large cash balances, which is obviously objectionable; and the other is by purchasing short-time bonds, or secured notes of which there are comparatively few in the market. And if life insurance should develop competition for this class of investments the price would be raised to such a point as to make the returns inadequate.

The question of the possible ultimate effect on investments of cash policy guarantees is one of the most important before us today, and especially as one of the uncontemplated effects of guarantees is to gradually convert each company, to the extent of its reserves, into a combination of a life insurance company and a savings bank.

It is difficult to make an estimate of the proportion of present reserves which are subject to cash demands, but it is a considerable percentage of the whole. As the old policies which do not provide for cash are becoming less in number each year, we may look forward to the time, perhaps only fifteen or twenty years hence, when nearly the entire reserves will be subject to demand payments unless the tenor of things is changed in the meantime.

The defects of the present situation are fundamental. Our cash

values and loan values need to be brought down to the level that will not be an inducement to the easy forfeiture of the insurance but which will tend rather to permanence in the carrying of the policy. There is a body of opinion which believes that three or six months' notice of intention to borrow or to demand the cash value is a sufficient corrective, but as the defects are fundamental a three or six months' notice is but a superficial remedy. Faults which are basic and have within them the possibilities of becoming a menace cannot be cured by postponement.

With the assistance of our state insurance officials and our legislative bodies, it appears entirely possible happily to compromise by legislative corrections so as to find the golden mean between the practices and benefits which obtained about thirty years ago, and those in vogue at the present time.

MUTUALIZATION OF LIFE INSURANCE COMPANIES

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In the year 1906 the legislature of the state of New York enacted, among other bills introduced by Senator Wm. W. Armstrong on behalf of the New York Legislature Life Insurance Investigating Committee, of which he was chairman and Mr. Charles E. Hughes was counsel, the following statute, providing for mutualization of stock life insurance companies:

Conversion of a Stock Life Insurance Corporation into a Mutual Life Insurance Corporation

Any domestic stock life insurance corporation, whether incorporated under a general law or by special act, may become a mutual life insurance corporation, and to that end may carry out a plan for the acquisition of shares of its capital stock, provided, however, that such plan: (1) shall have been adopted by a vote of a majority of the directors of such corporation; (2) shall have been approved by a vote of stockholders representing a majority of the capital stock at a meeting of stockholders called for the purpose; (3) shall have been approved by a majority vote at a meeting called for the purpose, in such manner as shall be provided for in such plan, of policyholders each insured in at least one thousand dollars and whose insurance shall then be in force and shall have been in force for at least one year prior to such meeting; and (4) shall have been submitted to the superintendent of insurance and shall have been approved by him in writing, provided that such plan shall not be approved by the superintendent unless at the time of such approval the corporation, after deducting the aggregate sum appropriated by such plan for the acquisition of all its capital stock, shall be possessed of assets sufficient to maintain its deposit theretofore made with the superintendent and not less than the entire liabilities of the corporation, including the net values of its outstanding contracts computed according to the standard adopted by the corporation under section eighty-four of this chapter, and also all funds, contingent reserves and surplus save so much of the latter as shall have been appropriated under such plan.

It is, perhaps, because of my service on the committee as its actuary and especially because of my well-known connection, as putative author, with its legislative proposals, that I am invited to prepare this account of what has been effected, and what has not been accomplished as well, under this law and also generally since its enactment.

The occasion for enacting such a measure was as follows: the investigation had disclosed that there had been evils in stock management of great companies doing principally a participating business, which real mutuality should eliminate; as, for instance, the very real evil of the control coming into weak or even criminal hands. It is true that mutual companies were not found to be free from evil conditions, owing to the fact that their managements, through a vicious proxy system, had been so entrenched that there was little sense of responsibility to the members; but this, the committee conceived, could be remedied by election regulations which would render the management more accountable to policyholders. In view of these things, it seemed desirable to give the opportunity, whenever the holders of the majority of the stock, impressed, say, with the importance of perpetuating the management in the interest of policyholders, were willing to provide for mutualization, for the policyholders to pass upon the matter and, if they and the superintendent of insurance approve, redeem the stock at a rate fixed by agreement and thereafter own and control their company.

There is no reason for disguising that an important and perhaps conclusive reason for recommending this legislation was the condition in regard to the Equitable Life Assurance Society in which the bare majority of $100,000 of stock controlled hundreds of millions of dollars of reserves and surplus accumulated for participating policyholders and in which evils and perils arising out of such control had so aroused the public that the committee and its investigation had resulted. The purchase of this stock at a price involving about $3,000,000, though it could never pay more than $3,500 per annum in dividends, the attempted semi-mutualization which was necessarily abortive, so far as vesting the control went, and the placing of the majority of the stock in the hands of trustees of the highest repute, under an appointment, however, limited to five years as required by statute, had emphasized the need for a provision for mutualization.

Since then, there have been two more transfers of the majority of the stock of this company, each time at an advance in price, equal to interest on the original consideration. Stability of management has so far been maintained by continuing the holding and voting trust from five-year period to five-year period. But there has never been mutualization although steps were at one time taken, looking

toward it. That this should be the case will require consideration; but such is postponed until later in this paper because there are many other matters which can, to better advantage, be dealt with, first. In passing, however, it is well to say that two mutualizations have taken place under the statute and that in an adjoining state a third has taken place, a court of equity passing upon it in lieu of the superintendent of insurance and also creating and supervising the procedure as provided by a special statute, all of which will be considered later in this paper.

Mutualization of a life insurance company was not unknown in the United States prior to the enactment of the New York law. Its earliest appearance in the United States was in Massachusetts where the excellent, established mutual life companies, now and for a long time controlled and owned exclusively by policyholders, originally had guaranty capital, ultimately redeemed out of policyholders' surplus pursuant to charter provisions. This was also true of the National Life Insurance Company of Vermont, and of a few other companies in other states.

The laws of Massachusetts, however, now provide neither for the organization of new mutual companies, with guaranty capital, nor for the mutualization of stock companies, for the organization of which provision is made in the statutes. In 1906, of the eastern states, only New Jersey provided for the organization of mutual companies by means of redeemable guaranty capital—an anachronistic survival in the statutes, not actually used for twenty years past; but there was no provision for mutualizing a stock company.

In New York, as in Massachusetts, it had been impossible for fifty years to incorporate a mutual life insurance company at all, *i.e.*, whether with guaranty capital or without. This was true, notwithstanding that in both states mutual companies were the leaders and their success indisputably complete.

This anomaly has a history which sheds light upon the whole subject, including the need for laws permitting mutualization.

Prior to 1835, what life insurance there was in the United States was purveyed either by ultra-venturesome and not very sound British companies or by the Massachusetts State Hospital Life Insurance Company (a stock corporation using its profits in part to maintain a hospital), the New York Life Insurance and Trust Company, the Girard Annuity and Trust Company of Philadelphia and

two or three other similar companies which supplied life insurance at very high rates, as a "side-line."

These concerns did so little life insurance business that in 1835 one of them successfully opposed the chartering of a new *stock* company in New York upon the ground, based upon its experience, that there was not enough business to divide. Similar throttling was resorted to in other states.

But a *mutual* movement got under way, perhaps because its potentialities were underrated, in 1835 in Massachusetts by the incorporation with guaranty capital of the New England Mutual Life Insurance Company—which, however, was unable to get under real headway for several years—and in 1842 in New York by the organization of the Mutual Life Insurance Company, without capital stock but with a good volume of insurance on which the first premiums had been paid. These two companies, together with the Connecticut Mutual, the Mutual Benefit of New Jersey, the Penn Mutual of Philadelphia and the New York Life (also mutual), all of which were organized within fifteen years, soon demonstrated the success of mutual life insurance and indeed drove the stock companies named above out of the field.

They thereupon (excepting in New Jersey as stated) brought about the prohibition of the organization of mutual companies, whether with or without guaranty capital. Not fearing stock company competition, they consented to statutes permitting such incorporation, but without provision for redeeming the capital stock and for mutualization.

In 1906, in addition to the section permitting mutualization which is set forth in the opening of this paper, Senator Armstrong introduced, and the legislature enacted, a provision for incorporating mutual companies with guaranty capital. This, however, has been wholly without result, as I myself warned the committee in that it would be, in case the limitation on total expense were adopted because a new company could not in its first years so confine its overhead expense. Certain of the committee and its advisers were so bent, however, upon heightening the public impression (which was otherwise well-founded) that economy was to be enforced, that it was insisted that the limitation upon total expenses of companies doing a participating business, now contained in Section 97 of the New York Insurance Law, be imposed. This provision really places

no restriction whatever upon a company with an established participating business, being far higher than the most wasteful management would dare to go. It was, moreover, at once relaxed upon the earnest and even eager initiative of the superintendent of insurance, by an amendment to relieve the company at the only time that it would have imposed some slight measure of special economy, *viz:* upon the Metropolitan Life Insurance Company when, by mutualization, it passed from a non-participating to a participating business. It merely renders the establishment of new mutual companies just as impossible in New York since 1906, as before, because, though now their incorporation is permitted by law, they cannot possibly keep total expenses, including home office expenses, down to this limit in their earlier years.

This has no reference to the limitations on cost of new business in the same section, which do—or at least should and would in all cases if not evaded in any way—affect old and new companies alike and afford fair canons for justifiable expenditure for new business, whether by an old company or a new company. These standards, it is now generally recognized, are genuinely useful and their imposition has been one of the most important reforms introduced by the Armstrong legislation. But the limitation on total expense remains the same as at the outset and, moreover, has, as stated, been promptly mitigated the very first time it might have enforced even the least measure of economy.

By the time the Equitable Life Assurance Society was organized in 1859, the door was closed, locked and sealed against the incorporation in New York of a mutual life insurance company, not because such had not been successful, but because they had—and so were powerful. These companies had dictated what the law should be.

The founders of the new company, Henry B. Hyde, cashier of the Mutual Life Insurance Company, and his father, Boston agent of the same company, purposed and wished to create a mutual company. It was of such a company that the elder Hyde, together with one Johnson (another agent, who went into the western wilderness and in the absence of stifling regulatory statutes founded the Northwestern Mutual Life Insurance Company, purely mutual, in a small Wisconsin town, in 1857, two years before the Equitable) talked together during their ever-memorable sojourn in Scoharie County in the Catskills, from which they emerged, each eager to set

on foot a new mutual company. It was also a mutual name which the Hydes chose, "Society," not "Company"; and in the literature put out to secure stock subscriptions, assurances were given that the policyholders would receive all the profits—the 7 per cent dividend on stock barely representing interest in those days. The charter so provided, also, and so provides to this day, to the great embarrassment of persons who would figure out a way to make the shares valuable, either by enlarging dividends or even on a winding-up basis, for either way all surplus appears to securely belong to policyholders.

Undoubtedly Mr. Hyde, *fils*, originally looked forward to having this stock retired some time, legislative authority being secured; but by the time the Equitable became one of the "big three" in control of life insurance legislation in New York and he could easily have secured such a law, the feeling of security and personal power and well-being which accompanied having "the control of the Equitable" locked up in his own safety-vault box, put this thought out of his head. Anything at all definite concerning having this stock redeemed never came to light, accordingly, until the persons supposed to represent the estate of the late J. Pierpont Morgan intimated that such might be done; but by this time it represented an investment, not of $50,000, but of nearly $3,000,000, and yet was costing dividends of only $3,500 a year, which rendered the problem somewhat difficult.

Of that problem and of its attempted solution, more hereafter. Before entering upon any consideration of what has taken place since the law of 1906 was enacted, it is desirable briefly to relate some of the things *re* mutualization which had taken place prior to that time and the difficulties encountered.

The Massachusetts companies and the National Life of Vermont, from their organization, mutual though with guaranty capital, slowly emerged as purely mutual by redeeming the stock; in some the process was long delayed and a little bit of stock ownership, a few thousands literally, hung on as a useless appendage, but ultimately this was sloughed off. The charters made provision for it.

In Connecticut, however, one such company, with a mutual name but with capital stock, found it no such easy matter. The holders of the majority of the stock, for a liberal consideration, sold

out to parties just then completing the wreck, at a profit to themselves, of a Philadelphia company.

Now Hartford had gone through that experience once already, *i.e.*, had had such men buy the control of a life company in that city and proceed to wreck it; and Hartford was then, as now, an insurance center, proud of its many sound, well-conducted companies, and jealous of its reputation. Therefore, the great insurance interests there supported certain officers and directors of the company in question, in obtaining a law providing for the retirement of the stock of this company at a figure not beyond its fair value. This was done by authorizing the company to buy its own shares. No small part of the credit for conceiving and carrying through this difficult and unprecedented program, which has resulted in the Phoenix Mutual Life Insurance Company becoming and continuing one of the best mutual companies in the country, is due to the integrity and determination of the present president of that company, then a young man and serving in a responsible, but not controlling, capacity.

Under the New York Law of 1906, authorizing and providing for mutualization, two stock companies have been mutualized, the Metropolitan Life Insurance Company and the Home Life Insurance Company, both of New York City. During the same period, one other company, the Prudential Insurance Company, of Newark, N. J., has also become mutual, under a special enabling act, by invoking the aid of a court of chancery.

The Metropolitan Life Insurance Company was incorporated in 1866. For more than a decade, through the most perilous period in American life insurance history, its outlook for permanence was precarious. About 1880, it undertook to establish an industrial life insurance business, the Prudential of Newark having broken the ground in a small way and the Prudential of London having scored a great success in Great Britain.

In doing this, the company availed itself of skilled field men, fresh from this work in Great Britain; and, when under the pressure of net level premium valuation, then rigidly enforced by insurance departments, its surplus rapidly fell away, the company also imported the London company's actuary. By his assistance, reasonable concessions regarding reserves were secured which, while making ample provision, did not require more than could be accumu-

lated. Thus fostered, the company built up a big and profitable business, enabling the payment of good cash dividends and also the increase of the capital from $500,000 to $2,000,000 by the declaration of stock dividends, upon which, by an amendment to the charter, dividends were limited to 7 per cent per annum.

The death of the president in the early nineties placed upon the present president, who had been his coadjutor from the start, sole responsibility for the management. The charter was amended, so as to give policyholders a vote, but with the provision that the majority of the directors should be persons holding, or representing, the owners of a majority of the stock. The company ceased entirely to issue participating policies, so that all, or nearly all, its accumulated surplus technically "belonged" to its stockholders—though the fact that dividends on "non-participating" industrial policies were paid and were really held out as payable might affect this.

It is the general understanding that the management, after the death of the first president, did not itself hold a majority of the stock; and from time to time there were rumors of a majority being offered for sale by others. These rumors ceased in 1914 and were succeeded by a rumor that the holders had adjusted matters with persons interested in the management.

The mutualization followed. It opened with a resolution of the Board of Directors adopted on November 6, 1914, setting forth that the company was possessed of surplus to policyholders (including capital) "amounting to over $40,000,000" and providing for submission, as required by statute, to meetings of stockholders and of policyholders of a plan to retire the stock, par value $2,000,000, by paying in redemption of the same the sum of $6,000,000.

The stockholders at a meeting held on December 4, 1914, approved the plan by unanimous vote, 75,960 shares (of $25 each) voting out of 80,000.

A notice, embracing a full and clear statement of what was proposed, was sent each policyholder together with a proxy blank (white) instructing to vote for the plan and another (pink) instructing to vote against the plan. The meeting of policyholders was held on December 28, 1914, and resulted in 59,552 votes for the mutualization and 2,074 against it.

On January 4, 1915, the chief examiner of life insurance companies for the insurance department of the state of New York made a report upon the condition of the company as of December 31, 1914, based upon his examination, showing resources of $496,872,915.32 and surplus (exclusive of capital) of $33,294,660.01. The same day the superintendent of insurance, proceeding upon the papers submitted, including this report, approved the mutualization which was immediately carried into effect.

The company parted, from a purely financial viewpoint, with $6,000,000 in order to be released from paying $140,000 per annum in dividends; or, assuming investments representing the $2,000,000 of capital yielded 5 per cent, *i.e.*, $100,000, a bonus of $4,000,000 was paid to get rid of paying in dividends $40,000 per annum additional, out of earnings of other funds.

But such is a very incomplete and partial view of the matter. This was still a stock corporation. If there was a doubt that all, or nearly all, the surplus "belonged" to the stockholders, there could be little doubt that courts would hold that much of it did; "much" might easily mean $4,000,000 or more out of more than $33,000,000. Indeed, it could hardly mean less. The limitation of dividends might, or might not, be valid; it also might, or might not, prevent capitalization of surplus. The continuation of policyholders voting might also be questionable, if contested on behalf of holders of a majority of the stock; and permanence and stability of management might be jeopardized by a change of ownership of a majority of the shares. With upwards of $450,000,000 of policyholders' reserves at stake, these considerations should not be lost sight of. The management had, by these means, the best at hand, sought to guard those interests; only mutualization could effectually and permanently do so.

Except as regards the majority of the shares, taken off the market by arrangement, the management was not over-heavily interested in the stock; and as regards that block of stock, no suspicion is entertained that the management enjoyed a substantial "rake-off" and it is known that "three for one" or thereabout is what it was earlier rumored that this block could be bought at. Neither, taking into account the risks which were great, were the returns on the original investment excessive, for capital embarked in so successful and profitable an enterprise.

When the mutualization section was added to the insurance law, the purpose was to enable stockholders and policyholders to strike a bargain and that such bargain should be utilized to redeem the stock unless the superintendent of insurance should see some serious and conclusive reason to withhold his consent; certainly no such reason here appears.

The Home Life Insurance Company was incorporated in 1860. Its capital stock was $125,000 and its surplus to policyholders (inclusive of capital) December 31, 1915, $2,013,455. By its charter stockholders were limited to dividends of 12 per cent per annum and the remainder of the profits belonged to participating policyholders. The company issued participating policies only, though it had a few non-participating policies, issued before 1907, in force.

The first step toward mutualization was taken on April 17, 1916, when the Board of Directors adopted a resolution setting forth the facts and submitting to meetings of stockholders and of policyholders a plan to mutualize by paying $450 for each $100 share or $562,500 in all for the $125,000 par value.

At a meeting, held on May 4, 1916, of the stockholders, 1,024 shares out of 1,250 being represented, holders of 409 shares being present in person and holders of 615 shares being represented by proxy, the proposed mutualization was unanimously approved.

A meeting of policyholders was called for May 25, 1916, the notice fully setting forth the condition of the company, the terms of the proposed redemption of stock and the reasons why the management deemed it advisable. Blank proxies "for" or "against" were sent to each policyholder. At the meeting 6,666 votes were cast, only six in person, 6,118 in favor of mutualization and 548 against.

On May 26, 1916, the chief examiner of life insurance companies made a report to the superintendent of insurance of the state of New York, as a result of his examination of the company, showing it to be possessed of $32,183,296.20 assets and $2,026,601.78 surplus (including capital); upon which report and the other papers submitted, the superintendent approved the mutualization and it was carried into effect.

Considered purely as a financial matter, this mutualization might also be questioned; for the dividends to which stockholders were limited were only $15,000 per annum or 2⅔ per cent on the redemption price of $562,500; but, again, there is the desirability of

getting rid of a useless and at some future time possibly pernicious stock interest and there is the consideration that even this is surely not an extravagant return for the risk the stockholders took in establishing the company and in bringing it to its present condition of security and earnings.

In any event, the intention of the legislature was to permit the stockholders and the policyholders to contract with reference to retirement of the stock, subject only to a veto by the superintendent if it were clearly not in the interest of policyholders; and such could not be said of this transaction.

The mutualization of the Prudential Insurance Company was effected under a special statute of the state of New Jersey providing for approval by a majority of the policyholders voting at a meeting called for the purpose and for the price being fixed by commissioners appointed by the chancellor. Instead of redemption, the mutualization could be effected by purchasing at least a majority of the shares and as many more as were offered at the price fixed by the commissioners; such shares could, so long as others were still outstanding, be treated as in force, thus leaving the policyholders in control of the company through their ability to vote the shares. This was accomplished by having trustees hold and vote the shares for the policyholders or rather for the company on behalf of the policyholders.

The Prudential, when mutualization was arranged for, had $2,000,000 capital stock and surplus of about $23,600,000. It had paid dividends of 10 per cent for several years and 20 per cent in 1913. Its cash dividends were not limited by law, but it could not increase its capital stock and so could not give dividends in stock.

The commissioners found the shares of $50 par value to be worth $455 each. This was arrived at by computing that $12,988,953.26 was clearly stockholders' earned surplus, that $5,000,000 fairly represented their interest in other as yet unrealized earnings and $185,155.63 the actual increase in market values accruing to the date of valuation. This makes $18,174,108.89. At $455 per $50 share, the commissioners allowed $18,200,000.

A special meeting of the stockholders was called for October 7, 1914, at which 30,889 shares were represented and were voted. It was unanimously resolved to authorize the company to purchase

such shares as were offered, at the price fixed by the commissioners. A special meeting of policyholders was also called for the same day, upon notice to each policyholder accompanied by blank proxies "for" and "against" the plan, at which 941,005 policyholders were represented of whom 940,797 voted for it and 208 against it.

These proceedings and the whole transaction were finally approved by the chancellor, after a hearing, on December 22, 1914.

It is obvious that a higher price was allowed for the stock in this case than in either of the other cases, the proof taken by the commissioners resulting in a much larger proportionate figure being fixed as the value of the stock, *viz.:* nine and one-tenth times the par value, as against three times the par value in the case of the Metropolitan and four and one-half times the par value in the case of the Home. Cash dividends were not limited, however, as in both the other companies; and market values also had been from four to as high as eight times the par value, actual sales, and the controlling interest had brought several years before six times the par value.

It may be doubted, however, that under the New York law so high a price would have been secured; for policyholders must have been greatly influenced by the findings of the commissioners, approved by the chancellor, regarding the value of the stock. In the absence of such, they might have driven a harder bargain, especially if the insurance commissioner gave support to their view of the matter.

The earnings of the company were so extraordinary that its vice-president and actuary was able to testify at the final hearing that about 40 per cent of the entire redemption price of the stock was recouped by the addition to surplus during the year in which the matter was brought to a conclusion.

This completes all the mutualizations that have taken place under such statutory authorization. One other in New York was mooted, *viz.:* the mutualization of the Equitable Life Assurance Society. The suggestion was brought forward after the death of the late J. Pierpont Morgan, who was owner of the majority of the company's stock. These holdings represented a cost of nearly $3,000,000 for a bare majority of the stock, *i.e.*, a price of $600 per $100 share or sixty times the par value.

The company possessed surplus, however, of nearly $80,000,000, of which about $10,000,000 was so-called "general" or unas-

signed surplus. Dividends to stockholders are limited to 7 per cent per annum—*i.e.*, $3,500 on the $50,000 of capital which an investment of $3,000,000 represented. Moreover, the charter quite definitely bestows all other earnings upon policyholders.

The suggestion seemed not to meet favor and was dropped. This stock was afterwards transferred at some advance in price to Colonel T. Coleman Dupont, the present owner.

From a financial standpoint, to pay out, say, $6,000,000 to redeem $100,000 of stock which is paying only $7,000 a year in dividends and apparently never to be entitled to more, seems unjustifiable. But three men so shrewd as Thomas F. Ryan, J. Pierpont Morgan and T. Coleman Dupont, have in turn paid the same price, or virtually so for a controlling interest; and another man, not less shrewd, the late E. H. Harriman, offered to take the stock from Mr. Ryan's hands or, if that were not acceptable, to share equally in its cost and ownership.

There is little doubt that the great disproportion of the price at which the stock would be offered in the proposed mutualization and its par value or its value based on dividend return was the cause of the subsidence of the movement to mutualize this company. It is notorious that the superintendent of insurance could not see how it could be justified.

Yet unquestionably the immediate purpose in enacting the mutualization law was to enable the stockholders and the policyholders of the Equitable Life Assurance Society, then desirous of making it a mutual company, to retire the stock upon reasonable terms which would be acceptable to both sides.

Why the law, though opening the door to other mutualizations, has not succeeded in making this feasible, deserves careful consideration to the end that, if practicable, a way be found to enable that company to free itself of its utterly inconsiderable stock interest.

The reason why mutualization of the Equitable, or at least the acquisition of control by its policyholders, has not been accomplished, is this: While you and I and everybody know that the majority of the stock of a corporation is worth more, share by share, than shares not so embraced, provided you want to control its management, policyholders, superintendents of insurance and members of the legislature, all only while serving in such capacities, must not be assumed to know this.

Not to know it did not make so very much difference in the Metropolitan or Home—though, in both cases, a price was allowed, at least equal to prices known to have been paid or offered for the majority of the stock—because only from three to four and one-half times the par value was allowed. In the Prudential, where nine and one-tenth times the par value was allowed, undoubtedly minority holders received two or three times what their stock could have been sold for. In the Equitable, however, the difference is enormously greater; three times would be a large value on an earnings basis while about sixty times has been paid or offered within ten years by shrewdest financiers for the majority holding, which carries control. Were the deal to go through, therefore, in the same way as the retirement of capital in the Metropolitan or Home, as provided in the present New York law, not only would sixty times, *i.e.*, about $3,000,000, be paid for the majority shares needed to give the policyholders control, but also sixty times, *i.e.*, just under $3,000,000 more, for shares not needed for that purpose, redemption of which would only save $3,500 in dividends.

To what does this point? To abandonment of the idea of mutualizing the company, to consenting to the payment of a vast sum to persons who do not hold the control in order to get control or to the advisability of amending the law so that the policyholders may authorize the purchase of the majority of the shares to be held by trustees and voted as the policyholders may direct, the price for such stock to be as determined by the agreement between the holders and the policyholders?

A precedent, in principle, for the last-mentioned would be found in the action of the Connecticut legislature *re* the mutualization of the Phoenix Mutual Life Insurance Company, under which the shares purchased were held by the insurance commissioner, acting as trustee, from 1889 to 1893 when, all the shares having been purchased, the trustee turned them over to the company and they were retired; the act of the New Jersey legislature authorizing the purchase of its stock by the Prudential is also a precedent. To be sure, both of these contemplated paying the same price per share to each holder presenting his stock for purchase; but such is not an essential, *sine qua non* element of such a law and, in cases of a tremendously high value attaching to the control, a departure in this regard might be made.

Unpleasant references to the probable motives of those who pay so much for control are not uncommon. Originally—*i.e.*, before 1906—it was supposed that the purpose was usually to secure control of the investing power in order to buy up control of other enterprises; since then, it is thought, that object is unattainable, so closely does the statute restrict investments by New York life insurance companies. Mr. Ryan asserted that he bought to prevent further demoralization of the stock and bond market; it was made public later that Mr. Morgan procured the transfer to him on the ground that he would feel easier if the control were with his firm. But, whatever the purpose of paying such a price for control and, indeed, yet the more if the purpose were or could be evil, there certainly appears to be good reason why policyholders might wish to secure the complete and permanent mutuality of the management of the company at an aggregate cost but one-sixth as great as in the Prudential, instead of depending upon the owner of the control continuing indefinitely (and in good faith) to trustee his shares, which arrangement expires, unless renewed, every five years.

CONSERVATION OF LIFE BY LIFE INSURANCE COMPANIES

By Lee K. Frankel, Ph.D.,

Third Vice-President, Metropolitan Life Insurance Company.

Writing in the Philosophical Transactions for March, 1693, on "Some Further Consideration of the Breslaw Bills of Mortality" from which he derived his classic mortality table, Halley states:

> Besides the uses mentioned in my former, it may perhaps not be an unacceptable thing to infer from the same Table, how unjustly we repine at the shortness of our lives, and think ourselves wronged if we attain not Old Age; whereas it appears hereby, that the one-half of those that are born are dead in Seventeen years time, 1238 being in that time reduced to 616. So that instead of murmuring at what we call an untimely Death, we ought with Patience and unconcern to submit to that Dissolution which is the necessary Condition of our perishable Materials, and of our nice and frail Structure and Composition; And to account it as a Blessing that we have survived, perhaps by many Years, that Period of Life, whereat the one-half of the whole Race of Mankind does not arrive.[1]

Halley's views reflected those of his contemporaries. It was still the age of superstition and ignorance. The fatalism which assumed that the laws of death were immutable still maintained. It is not difficult to understand how at a time when the plague was supposed to be due to the poisoning of wells, and when contagious diseases as such were practically unknown and unrecognized, that Halley should advocate a philosophy of submission to a decree which he believed to be unchangeable.

It is a far cry from this view, to the motto of the New York City Department of Health which states that "within natural limitations a community can determine its own death rate." The difference in these attitudes expresses the difference between the conception of life insurance in Halley's day and the modern attitude with respect to the lengthening of human life. What we are striving for today is the fulfillment of Professor Fisher's belief that the average length of life may be extended fifteen years by control of preventable diseases.

[1] *Journal of the Institute of Actuaries*, Vol. 18, p. 263.

The modern conception of life insurance has added the new function of life extension. Whether this assumption of a new function is primarily based upon the utilitarian desire to reduce premiums is immaterial. Every effort, it is true, is being made by insurance carriers to offer policies at the most attractive rates. Competition between insurance companies requires this. It may be that incidently life insurance companies have realized the desirability of making active propaganda in the direction of life extension. In the long run such activity must have the important result of cheapening the cost of insurance. Whether the motives which inspire such activities are utilitarian or humanitarian, from the standpoint of the public, they are of equal value and importance.

The history of life insurance with respect to life conservation may be divided into three periods. In the first we find the almost negative attitude of Halley in which there is the denial of the possibility of amending the presumably fixed laws of mortality. This attitude is followed by a later one, which may be called the "passive age."

It was during this period that life insurance companies considered the payment of indemnity as their sole function, accepting mortality tables based upon existing mortality rates. Life insurance companies made their premiums to accord with these rates. Certainly in the earlier days of life insurance there seems to be no evidence that the insurance companies endeavored to lower premiums through a reduction of mortality.

It may be urged that the medical examination instituted by life insurance companies in itself is evidence of the thought that cost to policyholders would be reduced through the selection of risk. There can be little doubt that in the main this is true. Through the careful medical examination of the applicant for insurance it is possible to exclude individuals of high occupational and other hazard. It is doubtful, however, whether this particular attitude of the companies was instigated by any desire or thought of extending the lives of the insured.

The third period in life insurance history, which may be very aptly called the "positive period," has its inception in the discoveries of preventive medicine and in particular of the nature of preventable diseases.

Koch's discovery of the tubercle bacillus was the beginning of

a series of important medical researches into the bacterial causes of disease. The practical application of these studies have had a most appreciable effect upon the death rate. It has only been within comparatively recent years that the machinery of life insurance companies has been availed of to coöperate with other agencies engaged in the eradication of preventable disease. The desirability of such coöperation should not require elucidation. Whatever assistance can be given by the insurance company to improve conditions of policyholders and to make them live longer must be of vital importance both to policyholders and to the company.

To fully appreciate the attitude of the life insurance companies one must understand the underlying functions of insurance. Primarily insurance as originally conceived was a coöperative undertaking to furnish reimbursement for losses occasioned by distinct hazards. In its essence and in its earlier development, it performed only one function, viz., indemnity or coverage for the existing risk. The premiums were based on the risk as found. Losses were paid as they occurred, with the right reserved by the insurance carrier to determine whether its findings or losses agreed with those of the claimant. To do this it established its own machinery for inspection and control. Life insurance is a classic example of this view. Similarly, fire insurance rates were based on past experience. The premiums took no note of the possible reduction in the fire hazard.

In its later development insurance assumed the secondary function of reducing losses by a reduction of the hazard. In fire insurance the carrier required the installation of sprinkler systems, etc. Accident insurance carriers required the installation of safety devices. It should be noted as of vital importance that the function of the inspection bureau differed essentially from the function of the bureau which adjusted claims. The one endeavored to prevent loss; the other secured the carrier against imposition and fraud. The prevention or reduction of hazard was an advantage both to the insured and to the carrier.

The question may be asked is a life insurance company an effective agency for carrying on a life conservation program? What has been said in the previous paragraph indicates the possibilities of the mechanism which constitutes a life insurance company. It is immaterial whether such a company be stock or mutual. Fundamentally there is a contractual relationship between the company

and its policyholders. Of more importance, however, is the idea that whether the insurance carrier is a profit-making or a mutual undertaking in the last analysis it is a great coöperative movement. Whatever is for the benefit of the company must necessarily be for the benefit of its policyholders. If life extension can benefit the company by obtaining for it longer periods of premium payments, inversely its value is demonstrated by the increase in the length of life of its members. It is no exaggeration to say that rarely has a family been indemnified by the cash payments of an insurance company for the loss of its wage-earner. In other words each year of added life to the important wage-earning member of the family is of greater advantage to the family than the payment of a death claim.

The opportunities of the insurance company in developing health propaganda are manifold. There are many points of contact between the company and the insured. The agent meets the policyholder at the time that the application is taken and frequently at later intervals for the collection of premiums, etc. There is the intimate contact of the insured with the medical examiner. The company meets the policyholder again when it sends out renewal notices. In many companies annual statements are sent to the policyholders which gives opportunity for approach. Finally there is the payment of the death claim which again brings the company in touch with the family of the insured. In the industrial companies, which collect premiums on a weekly basis, these points of contact are multiplied. Each weekly visit of the agent to the homes of the insured gives opportunity, if the company desires, for carrying on a campaign of personal instruction. It is only fitting that this should be so since in the industrial classes there is a greater need for such instruction as the mortality in this group is higher than among more favored classes.

There are still other points of contact. Most of the companies have actuarial and statistical bureaus. The material which reaches these bureaus daily has unlimited possibilities for research. It is these bureaus which have the opportunity of studying changes in mortality and to study the hazard of occupation, sex and age. As social laboratories they occupy themselves with the influence of climate and locality on disease and mortality. Furthermore through coöperation of these various statistical and actuarial bureaus

there is the opportunity of obtaining data regarding thousands of experiences which are a joint contribution of the various companies. In this way medico-actuarial studies, which have been made in the recent past, give mortality averages which probably more clearly represent the truth than could be obtained from the experience of any individual company.

The studies made in the past in this direction have demonstrated quite clearly the general improvement in mortality which has taken place. A joint committee of certain companies is now engaged in the construction of a new mortality table which will more closely reflect the true mortality conditions of today than is the case with the so-called American experience table, the one most generally in use. This table was constructed by Sheppard Homans between 1858 and 1863. At that time it was supposed to be a fairly conservative table for use by insurance companies in determining their premiums. Today nearly all companies have an actual mortality considerably lower than the one given in the American table. There has been a constant reduction in the death rate since 1870, due, of course, to many outside factors such as better water and milk supply, better health administration, the recognition of infectious diseases and the installation of methods for their control. The table below gives the actual to expected mortality cost of twenty companies and brings out rather clearly the need for a revision of insurance mortality tables:

PERCENTAGE OF ACTUAL TO EXPECTED NET MORTALITY COST, 20 LEADING LIFE INSURANCE COMPANIES OF UNITED STATES, 1915

Name of company	Expected mortality cost	Actual net mortality	Percentage of actual to expected mortality
Total 20 companies	148,368,609	100,721,600	67.89
Metropolitan	10,878,751	6,905,863	63.48
Prudential	10,130,186	6,628,815	65.44
New York Life	24,550,100	18,025,291	73.42
Mutual Life	17,406,560	12,797,219	73.54
Equitable, New York	16,000,581	12,251,340	76.57
Northwestern Mutual	14,691,003	8,859,447	60.31
John Hancock	3,466,528	2,283,256	65.87
Mutual Benefit	7,630,016	4,301,885	56.37
Penn Mutual	6,779,505	4,665,351	68.82
Bankers, Iowa	6,418,317	4,189,704	65.28
Total 1st 10 companies	117,951,547	80,908,171	68.59

Name of company	Expected mortality cost	Actual net mortality	Percentage of actual to expected mortality
Aetna Life	4,303,703	3,096,938	71.98
Union Central	4,142,222	2,547,340	61.49
Massachusetts Mutual	3,814,432	2,625,345	68.83
Travelers	3,529,321	2,313,512	65.54
New England Mutual	3,169,849	1,961,329	61.88
Provident Life & Trust	2,998,175	1,465,082	48.87
Connecticut Mutual	2,805,007	1,978,960	70.51
National Life, Vermont	2,077,409	1,368,495	65.86
State Mutual, Mass.	1,909,984	1,270,210	66.51
Phoenix Mutual	1,666,960	1,186,218	71.20
Total 2nd 10 companies	30,417,062	19,813,429	65.13

It should be noted here that the remarkable improvement in mortality which has taken place can only to a very slight extent be laid to the door of insurance companies. Notwithstanding the remarkable machinery which they have had at their disposal it has been only recently that the need of utilizing this machinery has been fairly recognized. More and more companies are awakening to their mission in this matter. If insurance companies are to increasingly assume the responsibility for the protection of their policyholders, if life insurance companies are not to be misnomers but are to assure longer life as well as to insure indemnity at death, it will be well to indicate here the lines along which their activities may be developed.

(1) Aid to Public Agencies in the Development of Public Hygiene and Sanitation

(a) *Surveys.* If insurance companies are to help in the great health campaign now being developed in the United States they must first know the facts. To obtain these surveys are necessary. The direction of this has been indicated in the classic work of Messenger, the late actuary of the Travelers Life Insurance Company in the survey which he made of a number of southern cities. More recently the Metropolitan Life Insurance Company has made sickness surveys in certain communities. Both of these, however, are but beginnings. There is no reason why insurance companies should not make much more detailed and elaborate surveys than have yet been attempted. No organization can be more interested in determining the exact health conditions in communities than

are life insurance companies. It is in these communities that their solicitors and canvassers are seeking individuals to whom to preach the doctrine of protection. It is of the highest importance to the company to know whether health conditions in the community in which it is carrying on its business propaganda contains those elements of public health administration which will insure to the citizens possibility of long life.

(b) *Assistance to Health Officers.* In the present development of health administration in the United States the service which insurance companies can give to health officers is inestimable. Unfortunately in too many communities politics still plays a part in the administration of health offices. Too many of the officials are incompetent and unprepared for the important duties they are to perform. In too many communities there is still an utter apathy regarding health conditions even where there are efficient men giving all their time and thought to improving sanitation and health. It is in these particularly that the agents of the company can teach the lesson to citizens of the need of coöperating with the health authorities. It is in these communities the companies would be justified in bringing home by letter, circular, advertisement or other means, the need for adequate appropriations to carry on efficiently the cities' health work. The agent of the company can become a health missionary. He can cite precept upon precept, statistics upon statistics, to prove from the experience of his own company how closely the death claims paid by his company are related to health conditions. The needs for hospitals, sanatoria, etc., could be accentuated. The removal of pest spots, reforms in the water and milk supply, and other improvements which tend to increase health come within the purview of the company, either through its agents or medical examiners.

(2) EDUCATION OF POLICYHOLDERS IN PERSONAL HYGIENE AND SANITATION

(a) Through medical examiners and nurses.
(b) Through periodic examinations.
(c) Through agents.
(d) Through literature.

(a) *Through Medical Examiners and Nurses.* It is here where the insurance company can exercise its most important function. Its relation to its policyholders, as stated above, is a close and inti-

mate one. The relationship is fortunately one of mutual confidence based upon the belief that the company is a great coöperative organization.

It is not difficult to conceive of the possibility of the physician, who examines an applicant for life insurance, doing more than he is expected to do at present. At the time of the examination it would be quite feasible for him to give instruction to the policyholder along health lines. He could give literature to the prospect prepared by the company. He could explain either in person or through literature especially prepared, the relationship which will exist between the prospect and the company in case he obtains a policy. He could drive home to the policyholder the need of protecting his health. Such protection and preservation means an advantage not only for him but for the other men, women and children, who are associated with him in the insurance company.

The medical examiner, or if not he, then the insurance company, could undertake to give instruction to the unfortunates who are rejected. The number of individuals who yearly apply for insurance and who are unable to obtain it by reason of ill health is probably larger than is generally realized. And yet these individuals needed insurance probably more than their brothers who were more fortunate. Many probably suffer from impairments which are remediable. A number could probably be restored to a sufficiently good state of health to warrant the insurance company in accepting them as risks. They need instruction and guidance. In too many cases today this is not given.

I realize that there are many reasons which can be advanced by insurance officials regarding the desirability, if not infeasibility, of attempting to give information to rejected applicants regarding the results of medical examinations. On the other hand no one can deny the need for attempting to help this group. I have discussed this matter in an earlier paper on another subject.[2] I still believe that some plan can be devised whereby the rejected applicant, through his family physician, could be made acquainted with his condition so that he might undertake a course of treatment in the hope of ultimate recovery. The field of the rejected applicant is still largely neglected by insurance companies. On the other hand no more important service could be rendered by insurance com-

[2] "The Interest of Life Insurance Companies in Social Hygiene," *Social Hygiene*, December, 1914.

panies than this. The value of the physician in the company's health campaign needs no lengthy discussion. It is so obvious that we can pass without further comment.

There is still another professional agent whose services are probably equally important but who until recently has been but little recognized. I refer to the trained nurse. No outsider comes into as intimate contact with the family as the nurse does. She sees the family from every angle. She is apt to meet every member of the family. She is called upon to render services to the father as well as to the infant. The opportunities for education given to the nurse have no bounds. At the time she is carrying out the instructions of the physician to effect a cure of her patient she may impart lessons in sanitation and hygiene, which in the long run may result in the prevention of disease. The use of the nurse by insurance companies is still in its infancy. At present it is confined to one of the industrial insurance companies. It is interesting to know, however, that only recently one of the fraternal orders in the Middle West has arranged for nursing care of its members.

(b) *Through Periodic Examinations.* Comparatively few insurance companies have as yet availed themselves of this splendid opportunity of education of policyholders. In one large company, notwithstanding the offer of a periodic examination made several years ago, only 8 per cent of the policyholders have availed themselves of the opportunity. This by no means indicates that such an examination ought to be abandoned. Policyholders must be educated to appreciate the value of this service. Such education takes time. Many policyholders still harbor an attitude with respect to insurance companies, which is one of doubt. Too many in the past have been imposed upon by unscrupulous agents. Many of them have a vague fear regarding offers which may come to them from the companies in which they are insured. It will take time until this fear wears off. In addition there is the general fear of human beings regarding their own illness. Many prefer to remain in a condition of ignorance. A statement recently made by Dr. Meltzer of the Rockefeller Institute was to the effect that frequent examinations of individuals would breed hypochondriacs. Many, who today have the impression that they are quite well, would believe that they were ill and continue to remain ill. All these arguments, however, have no bearing upon the fact that in the

long run periodic reëxaminations of individuals must result in benefit. It is the application of the business principle of taking periodic inventory of stock. The merchant must know the amount and kind of stock he has on hand. Such knowledge is a fundamental in business. It is the application of this business principle that is the basis of periodic medical examinations. In time it may be hoped that with the better education of people in matters relating to health, the periodic examinations of all individuals, men, women and children, will be as much a part of one's life as bathing and cleansing of teeth. In the development of this attitude insurance companies can be extremely helpful. When periodic reëxamination becomes more common in its application insured people will realize what a boon they are offered by the companies with which they are connected.

(c) *Through Agents.* The value of the insurance agent as an educator is still underestimated. The confidential relation which he holds to the policyholders is not appreciated. Insurance has frequently been spoken of as a profession. The reason for this lies in the fact that the real insurance agent is more than a salesman. He is an advisor to the insured. The latter is rarely able to distinguish between policies owing to their technical character and in most instances he must depend upon the agent to guide him right. The real agent who is scrupulous in his approach, who presents to the policyholder the things that he needs, performs precisely the same function as the lawyer or the physician. If he has the correct assumption of an agent's duties, confidence between him and his policyholder is soon established. With his confidence as a basis the agent becomes an instrument of the greatest value to the insurance company in carrying on an educational campaign along health or other lines. His advice is accepted, the information which he has to impart is sought for. The literature which he distributes is read; the lessons which this literature teaches are taken to heart because it is realized by the policyholder that these lessons are taught to him for his own good.

The agent has still other opportunities. He can take an active interest in civic matters, he can become identified with civic organizations. He may be the man to encourage the "spotless town" idea. He should become the agitator in his community for improvement in health conditions. He can be the individual to

bring to the notice of his fellow citizens the things they should do in encouraging city officials to develop efficient sanitation and hygiene. Opportunities of this kind are given in particular to the industrial agent by reason of the fact that he comes into such frequent contact with his policyholders. He can be a powerful educational medium. If he is acquainted with the conditions in his community he can translate these in terms which working people will understand. It has been proven beyond peradventure that the possibilities of such educational propaganda are limitless. The intimate acquaintance which the industrial insurance agent has with each member of the family, the approach which he has on a level of equality with the family makes it easy for him to establish intimate relations which soon grow into those of friendship. It is not unusual for him to be called on by members of the family in time of trouble and as he has been frequently described, he may become the guide, councilor and friend.

(d) *Literature.* Year after year valuable literature in health conservation is being published by universities, research laboratories, statistical bureaus and other channels of learning. The medical press is replete with reports of physicians, bacteriologists, embryologists and others on the origin and preservation of life. In the main this literature is not available to the ordinary reader and if it were he would not be in a position to understand its technical nature. The opportunity is given to insurance companies to translate this literature for the benefit of its policyholders. Pamphlets describing the simple laws of health, the influence of habits on life, can easily be prepared for popular consumption. In fact the literature which has grown up within the last few years to interpret scientific research in terms of popular thought, is very large. Through the many points of contact which insurance companies have with their policyholders it is feasible to bring this literature to their notice. Investigation has determined satisfactorily that the literature is read and that it is preserved. The influence of such instruction persistently maintained and covering all the facts which enter into the question of human health must in the long run have a very marked result.

(3) RESEARCH

I have spoken above of the possibilities that lie in the actuarial and statistical divisions of most insurance companies. Probably no

other agencies outside of Governmental Census Bureaus have the ability or opportunity of keeping such accurate and careful record of the data which reaches them daily. It may even be said that the records of insurance companies from the standpoint of research are even superior to government statistics. The latter must always have certain elements of error by reason of the difficulty in accurately determining the size of the population. Insurance companies on the other hand have most carefully recorded data regarding the number of policyholders and policies in force. Similarly the mortality records which are kept are of the best. Under these circumstances the insurance companies have a vast storehouse of material for purposes of research which give the fact data so necessary to determine changes which should be made in health administration. Much, however, has already been done in this direction. I need only cite the careful studies of Hunter on alcohol, of Hoffman on tuberculosis and cancer, of Dublin on mortality in the higher age groups, and of Rittenhouse and Fisk on medical reëxaminations and degenerative diseases to indicate the possibilities which lie in the field of insurance companies.

(4) Loans for Workingmen's Homes

While statistical information is still lacking as to the influence of proper housing on longevity there seems to be little doubt even without this data that evil housing conditions in the long run must increase morbidity and mortality. The housing conditions which are found in many of our communities and even in rural districts call for much study and needed legislation. Much has already been accomplished in this direction through associations like the National Housing Association whose important duty has been to advocate ordinances and laws which shall make for better ventilation, lighting, etc. In addition opportunity should be and must be given to the workman to enable him to live in decency and comfort. To do this he must be enabled to borrow funds for home building purposes under conditions that will not be arduous and that will not require him to make early repayment. These plans are not novel and have been worked out to a very considerable extent in certain European countries. Basically, the plan calls for an instalment mortgage payable in a period of ten to twenty years

and with insurance protection so that in case of the death of the purchaser his home will be free and clear of encumbrance.

Only slightly have insurance companies as yet seen possibilities which lie in this direction. It seems only reasonable that the vast accumulation of reserves which insurance companies are required to put aside under the law for the protection of policyholders and which must be invested to produce returns, should be applied for the direct improvement of the living conditions of those who have paid in their savings to make up these funds. It would seem only proper that preference in the investment of insurance funds should be given to policyholders who desire to make loans for home building purposes. It is assumed, of course, that in making these loans the insurance company must be assured of the safety of its investments.

Assuming that all which has been indicated above might be undertaken by insurance companies the question will arise, would such activities produce results in the extension of life? This question is a difficult one to answer. So many factors enter into the question of mortality that an accurate determination of the influence of one or more additional factors is almost impossible. Nevertheless the great reduction in mortality which has taken place in the last few decades must be convincing to anyone that the propaganda which has been made through public and private agencies must have been instrumental in this splendid decrease in the percentage of deaths.

There is little data available to indicate the results which have been produced by activities thus far carried on by life insurance companies. I might mention the study of Fisk with respect to medical reëxamination. According to Fisk's statement, impaired lives which were found as a result of such examination, and which were subsequently advised regarding the method of life which they should pursue, demonstrated that the actual mortality among this group was lower than the expected mortality. Other interesting data which may be cited are taken from the nursing service given by the Metropolitan Life Insurance Company to its industrial policyholders. This service is limited to acute conditions and to service at the time of maternity. In the year 1915, 23.9 per cent of the total female cases were maternity cases. This is about the ratio of maternity cases for several years prior to that date.

The company's mortality experience for the years 1911–1915 shows that the death rate from diseases and conditions of the puerperal state, ages 15 to 44 had decreased 10.4 per cent and between 1914 and 1915 8.3 per cent. During practically the same period (1910 to 1914) the death rate from the same causes in the Registration Area had remained practically stationary, if it had not somewhat increased. This leads to the belief that the influence of the nursing service materially affected mortality from the above causes.

The company's mortality from typhoid fever, another one of the diseases to which particular attention has been given by the nursing service was 19.3 per one hundred thousand for white lives in 1911 and 13.6 per hundred thousand in 1914, showing a decrease of 29.5 per cent. In the Registration Area between 1910 and 1913 there was a reduction of 26.3 per cent or 3.2 per cent less than the company's experience.

In the group of infectious diseases of children such as measles, scarlet fever, whooping-cough and diphtheria there has been a reduction in the company's experience of 18.2 per cent in the three years, 1911 to 1914. In practically the same period (1910–1913) the Registration Area rate showed a reduction of only 11.1. The company's total white mortality experience showed a rate for 1915, 34.8 per cent below that of 1894. Between the years 1911 and 1915, the years in which the company's activities along life conservation lines have been most actively developed there was a decline in the mortality of whites of 10.2 per cent.

As stated above it is impossible to determine to what extent the systematic attempt to conserve lives of policyholders has influenced the company's mortality. In view of the fact, however, that in certain respects this mortality has decreased more rapidly than in the population of the Registration Area, it is probably not exaggerating to assume that the efforts that have been made have influenced the mortality reduction.

THE FUTURE

In just what directions human life conservation in the future will be developed by life insurance companies is problematic. Much will depend upon the course which will be followed by public health agencies. In many of its phases, particularly in the one of infectious diseases, the preservation of health is essentially a public

function. The control of disease in many of its aspects assumes the right of the police power. This cannot be and probably should not be entrusted to private agencies. For the present the insurance companies can be the pioneers in pointing the way. It is already evident that improvements in many communities are due to the activities of the life insurance companies. That the service which the latter are rendering can be more thoroughly organized and more highly developed than at present, there can be no question. It is particularly desirable that instead of initiative on the part of individual companies there should be more concerted action among life insurance companies. If there were one great centralized health movement carried on jointly by all the life insurance interests in the United States, a power would be developed for health betterment which would be invincible. Such a centralized bureau would have behind it all the accumulated funds of the insurance companies of which the investment of even a small percentage in life conservation would bring astonishing results. Such an investment used primarily for the education of policyholders would develop an army of health advocates which no legislature could withstand. With this army instructed and prepared for a campaign which shall spell elimination of preventable disease, communities that are lagging and backward would be compelled to realize their deficiencies and take an advanced step in health matters.

GROUP INSURANCE

By Ralph Barnard Trousdale,

The Equitable Life Assurance Society.

Progress in the domain of life insurance has been regular and constant. Each year has witnessed the bringing forth of new policy forms, granting greater and greater privileges to the insured. At the same time, greater efficiency and economy in the home offices and the field have resulted in increased earnings and greater savings which have been immediately reflected in premium refunds to policyholders, so that the net outlay of the individual insurer for a fixed unit of life insurance has steadily grown smaller. While the general progress of the life insurance companies has been little short of marvelous, heretofore it has been exclusively in this one direction. All of the companies maintained agency forces of skilled and experienced men, whose business it was to seek new and additional business, but they had nothing to offer that could make a direct appeal to a large percentage of the people. The great masses of small wage-earners were only rarely patrons of the standard life insurance companies. Life insurance was expensive, from their standpoint, and its benefits seemed to be limited to those who were able to pay the price. Many were unable to secure insurance because of inability to meet the required standard of the medical examination. The families of the great majority of wage-earners were to a great degree without the protection of life insurance, except possibly to the extent of small industrial policies, which with their small weekly premiums and relatively high cost, rarely amounted to much more than a funeral benefit. Real life insurance protection for those of very small means was apparently beyond reach.

An Important Advance in Insurance Practice

Group insurance, which is practically life insurance at wholesale, has remedied this state of affairs. Its introduction marked the greatest advance in the life insurance institution, since its establishment. It placed life insurance within the grasp of those whose

need for it, if not greatest, was very great, and who hitherto had been unable to enjoy its benefits. It reached all classes, from the highest to the lowest. It provided for those usually considered beyond the insurable age, and for those of the impaired class. It included the heedless and the indifferent, not a large class, fortunately, reaching them for the first time and protecting their dependents.

Group insurance is essentially an employer-employe mutual benefit proposition. It is a plan under which all employes of one employer may have their lives insured for substantial, but not large amounts. A medical examination is not required where the group includes more than one hundred individual lives. On smaller groups, a medical examination is required but the examination is not nearly as rigid as in the case of individual applicants. Groups, to be acceptable, must measure up to certain life insurance standards. There must be nothing in the nature of the employment that is dangerous or likely to be injurious to health. If employed within doors, as in the case of a clerical or factory group, the group must not be exposed to any undue fire or catastrophe hazard, and must be housed in sanitary surroundings. Drinking water, not exposed to contamination, must be available. The group, considered as a whole, must be composed of a desirable class of risks. It may include individuals who are not of themselves good risks, because of age, physical condition, occupation, or other reasons, provision having been made for the inclusion of what usually proves to be a small percentage of uninsurable and sub-standard risks, which balanced against a high percentage of standard risks results in a safely insurable risk.

The group plan contemplates that the entire cost of carrying the insurance, which is very low, shall be borne by the employer. Partly for this reason, and partly for others that will be described later the group policy ceases to operate as to the individual upon the termination of his relations with his employer, whether voluntarily or otherwise, and his insurance therefore terminates. The group policy may, at the option of the employer, contain a provision to the effect that such an employe shall have the right to apply directly to the life insurance company, within thirty-one days after the termination of his insurance under the group, for a policy on any standard form issued to individuals, and for an amount not greater than that for which he was formerly insured, and obtain it

without medical examination, upon paying the premium rate at his attained age. At first glance, this may seem to be a valuable privilege to extend to the individual, but it grants nothing that is not available to the general public, with the exception that it avoids the usual requirement of the medical examination. Since those insured under group policies are to a great extent unable to pay standard rates, this provision would be of no value in the great majority of cases. Including it in the group policy gives no real advantage, and omitting it brings about no hardship.

Group insurance is in no way intended to take the place of other forms of life insurance that are or may be carried. On the contrary it frequently is the means of bringing about additional individual business to the companies, having had the effect of arousing thought on the subject, perhaps for the first time. In many cases, the group insurance will be the family's only protection. In others, it will be but a valuable addition to policies already carried. Investigation has shown that nearly all beneficiaries under group policies have been otherwise unprovided for, and in but comparitively few instances has there been other insurance.

THE UNIT FOR GROUP INSURANCE

The most satisfactory unit for group insurance has been found to be the year's salary with a maximum of $3,000 to any individual. This is a natural and not an arbitrary selection. It takes automatic account of all changes in the pay roll in the way of increases or decreases, and there is no discrimination between individuals other than that which already naturally exists. All employes are insured according to a standard already in existence which is familiar to them. Under this arrangement piece and time workers are included for an amount that may be assumed to be about that which they will earn during the ensuing year, or for the amount actually earned during the preceding year. As it may be arranged to have the death benefit paid to a beneficiary in twelve equal monthly instalments, the effect is to continue the beneficiary on the same income basis on which she has already been established. An employer once criticised this arrangement because it had the effect of placing a new employe on the same insurance basis as an old one where both received the same salary, but it was pointed out to him that this is really not an objection at all. The salary received by an employe

is based not only on the quality and character of his service, but upon length of service as well. When a new employe is engaged at the same salary as that paid to an old employe, it is a fair assumption that the new employe is a more valuable one.

A group policy may be issued for a fixed unit such as $500 or $1,000 to each individual. Such an arbitrary selection places all employes on an equal footing, and is in a sense discriminatory. Where the unit is as small as $500, there is frequently a provision for an increase of $100 for each year of service until a fixed maximum has been reached. Past service may or may not be taken into account.

Employers generally seem to be agreed that when group insurance is first adopted every employe on the pay roll should be included. New employes usually are not included until after a short term of service, which may run variously from three months up to a year, according to conditions. This arrangement excludes the transient and casual worker, and is looked upon as a reward to the persistent.

MEETING THE COST

It has been stated that the cost of group insurance is extremely low. Before the exact rate for a specific group can be quoted, certain factors must be known. Group insurance, as in the case of individual insurance, is based upon ages and amounts. To secure an exact rate, the employer must furnish a list of employes, with the date of birth of each, and the amount of insurance each is to have. For preliminary purposes, and before the foregoing information is available, the rate is usually quoted as one dollar per month for each thousand dollars of insurance. On a percentage basis, this would amount to a premium of one and two-tenths per cent on the total amount of insurance. An employer granting five hundred dollars insurance to each of his employes would be incurring an outlay of fifty cents monthly on each individual. Where the pay roll is to be used as the basis of calculation, and the unit is to be the year's salary, as the limit is usually fixed at three thousand dollars on any individual, the prospective cost would be determined in the following manner. From the total of the annual pay roll would be deducted the excess of all salaries above three thousand dollars. From the remainder, which would be the total amount at risk, the

percentage at the rate of one and two-tenths would be calculated, and this would give the rate for the entire year. Divided by twelve this would give the monthly rate. The foregoing figures may reasonably be regarded as the maximum. The actual outlay is seldom so large. Often it is very much less.

In a canvass for group insurance, the employer invariably inquires why he should be expected to pay for the insurance. He recognizes it at once as being a splendid proposition for the employe, but he does not see what he is to realize from it. Before this question can be answered, it is necessary to consider the existence of certain tendencies, in the industrial world which group insurance is designed to counteract.

The arrival of very large corporations and combinations of corporations, with the consequent introduction of efficiency methods, completely revolutionized nearly every department of business. The individual worker ceased to come into direct contact with his employer, with whom it was not possible for him to have any acquaintance. The intimacy existing formerly in smaller concerns, could no longer exist, and personal relations were at an end. This opened the way to misunderstandings and disagreements. The worker began to measure the value of his job by the only standard that existed, the pay envelope. Naturally enough, the employer's hold on him grew to be very slight. The work to be performed was often purely mechanical, and without especial interest, and there was no particular reason why, so long as he was obliged to work, he should be with one concern rather than another. Finding other employment nearer his home, or offered slightly higher pay elsewhere, he accepted it. A row with a foreman frequently brought about the termination of his services; often the cause was mere restlessness. Whatever the causes, large concerns employing many workers found themselves obliged to maintain expensive employment departments, not for the purpose of engaging additional hands, but often for the sole purpose of replacing departing employes with whom no fault had been found, and who might easily have been retained, and whom it would have been extremely desirable to retain.

THE LOSS IN LABOR TURN-OVER

This has been the common experience of all classes of employers, but until recently it has been regarded as a necessary evil, about

which there was nothing to be done. It simply had to be endured. With the ever increasing cost of labor and materials, the problem reached overwhelming proportions, and it was admitted that something had to be done. It was discovered that every departing employe caused a distinct and heavy loss. New hands required instruction, and while earning very little or nothing themselves, were taking up the valuable time of their instructors. Machines as a result were idle, or partially so. Material was wasted, seconds were produced, the output was appreciably curtailed. Efficiency and economy required that the industrial forces be converted into permanent fixtures of the institution, but the question was, how could it be brought about? In the effort to accomplish this result industrial welfare work had its beginning.

Wages are fixed to a great degree by the market for labor, and by what others in the same line are paying. So long as he may receive the same rate of wage from any employer who desires his services, there is no controlling reason why a worker should connect himself with one concern rather than another. Where the wage is the only concern, the spectacle of the highest possible pay being demanded for the smallest possible amount of labor, is not unfamiliar. The employer discovered that his first step must be to create a bond of sympathy between himself and his employe, that would result in benefit to both. To ascertain the means of bringing this about was a great problem, but it has been solved, as a result of many experiments. There may now be said to be a complete program of welfare work, which when properly applied, has begun to accomplish its intended purpose.

WELFARE WORK

Welfare work is supposed in many quarters to apply exclusively to charitable enterprises. In the sense in which it is here employed, it is in no way allied to anything of a charitable nature. In the industrial and business world, welfare work concerns itself among other things, with benefiting the wage earner and his dependents through the total or partial elimination of certain hazards, to which all persons who depend on their earnings for their livelihoods, are unavoidably exposed. These hazards, enumerated in the order of their importance, are lack of employment, loss of income to dependents through death, loss of income through dis-

ability, and dependent old age. The welfare program naturally has nothing to offer against lack of employment. It begins with the man who has a job.

The man with a job, any kind of a job, is well off, compared with the man who has no job at all. Next to the job, the amount of the wage is important. An employer who does not pay a fair wage to his employes, need expect no return from welfare work, and any money expended in that direction will be wasted. Following the size of the wage in importance is some provision for its continuance to dependents when death has taken the wage earner. Here the loss is total and complete. Group insurance will provide the necessary indemnity. The succeeding provisions should be for indemnity for disability, for time lost through accident or ill health, which, at its worst is but a temporary and partial loss, involving perhaps, privation and discomfort, but not a complete loss, for the worker is alive, and is still an asset to his family. Dependent old age is provided for through pension funds, now being generally established.

That workers and their families place a valuation on group insurance that is herein claimed for it is no longer open to argument. It has been amply demonstrated by experience. It brings relief to the employe, relieving his mind of care for the future of his dependents, and creates a strong bond of sympathy between him and his employer. It goes further and reaches into the home. It removes dread of the future from the mind of the wife, and arouses her interest in the employer. It provides for her and for her children to an extent often undreamed of. Does any one doubt the intense interest of women in life insurance? The tremendous business of the industrial companies has been built up on this interest, for nearly all industrial policies are sold to women, paid for week by week for women, and are kept in force for the small amount of protection they have to offer to dependent women and children. With the group policy in effect, the worker and his family have a direct and personal interest in the employer that they never had before. The man stays on his job, and group insurance has accomplished its purpose. Such a result could not be brought about by the direct expenditure in any other way, of the same trifling amount of money that is expended upon each individual under the group plan. An increase in the pay check of one dollar a month could hardly be de-

pended upon to produce much in the way of appreciation. It would be more likely to arouse resentment. The same amount can not be used to purchase any other real benefit for a worker. But it will purchase a substantial amount of real life insurance, and used in this way, is an investment in good will which produces results out of all proportion to its cost. In a sense, there is no cost, for employers without exception have found that it pays for itself in greater efficiency, and increased loyalty, which have their effect on production.

Group insurance is not offered as a panacea for all industrial ills. It is a powerful aid in solving many of the pressing present day industrial problems, through the good feeling that it engenders, and the actual advantages that it confers. In large concerns, these advantages are constantly apparent. Deaths frequently are numerous, and it takes very little time for the information to spread that a beneficiary has received her check at the office, for, while the check is made payable directly to the beneficiary by the life insurance company, it is usually sent to the employer for delivery.

SOME EXPERIENCES WITH GROUP INSURANCE

Some years ago, when group insurance had first been introduced, and was all but unknown, brief mention of it in a newspaper attracted the attention of a foreman in a great manufacturing establishment, in which were employed many thousands of people. This foreman was a forceful and progressive individual, and at the head of a department that included about eight hundred hands, all under his direction. He had found that in his own department about three hundred changes were taking place annually, for which there were no apparent reasons. He had calculated that every change was costing his employer about twenty-four dollars. In a vague way, he had put forth some effort to ascertain why so many changes took place, but could give no apparent reason, other than the restlessness of the average employe. He knew that his department was not operated economically, and he was very anxious to make it both economical and efficient, but he was at a loss as to the steps that should be taken. He had placed the matter before his employer, and there it had remained, with every promise of remaining. As stated, this foreman's attention had been attracted to a brief newspaper notice about group insurance. The notice did not men-

tion the company that issued it, but gave the name of a concern that had adopted it. The foreman wrote for information, and eventually got into communication with the insurance company, giving his home address, and not revealing the name of his concern. For seven months he investigated group insurance. He asked for and received a list of the few concerns that had at that time taken it up, and wrote to them all. He interested his fellow foremen, and the superintendents, then the officers of the concern, and finally went to the office of the president, where, backed up by all his associates, he stated his case. The result was complete success, and the group insurance became effective. This group policy has now been in force for five years, and has produced results.

A manufacturer who had for some years been extending certain benefits to his employes, but in a desultory way and without any very definite object in view, had come to the conclusion that he was wasting his money. He had adopted a profit sharing plan, and once a year distributed a large sum of money to his workers. He had received no benefit in return. His men had become accustomed to the distribution, which took place at a stated time, and looked upon it simply as a deferred portion of their pay. He had opened an elaborate lunch room, which was maintained at considerable loss, and had found that the men would not patronize it although a first class luncheon was obtainable at an extremely low cost. He had organized clubs which were rarely attended, and had a baseball team which aroused interest of a kind that brought no return. He paid good wages, and as far as possible, tried to employ only steady, married men. He had a sincere interest in the well-being of his employes, and was anxious to improve their condition. He had gone to the extent of trying to become personally acquainted with every one of his employes, and explaining to him the advantages of taking his pay envelope home, unopened. In a dim way he recognized that the wife was a factor that had to be taken into account. With many he had succeeded. The great majority of his employes did take their pay envelopes home unopened. But nothing was accomplished. Changes in his factory were as numerous as in many others. An employment department that was overworked, was finally charged with the responsibility of learning the reason for its own existence; in other words it was ordered to ascertain from each departing employe, why

he was departing. The result was very unsatisfactory. The employer had finally decided that he was face to face with a problem that had no solution. Group insurance was brought to his attention, and attracted him immediately. He adopted it, being the first one in his line to do so. He advertised that he had adopted it. His employment department told of it, when the new employe was engaged. It was the solution of his difficulties, for after six months' experience he found that he had attracted many of the best workers in the trade.

The experiences of employers might be related without end, but in many instances would be of the same general character, varying only in detail. The following account gives the viewpoint of the employe. The concern was one of the most prominent in the country, having not only a national, but an international reputation. Its product was recognized as incomparably the best. In age, it was venerable, for this country, and its management and ownership were still vested in the family that had founded it. The employes, numbering perhaps fourteen hundred, had to a great extent, grown up with the concern, and included fathers, sons, grandsons, and greatgrandsons. There was nothing impersonal as to the relations between employer and employe. They were distinctly personal. One of the owners was the head of the manufacturing department. Another was the head of the office force. Most of the employes were known by their given names. The factories were in a somewhat isolated section, and many of the employes lived in a model town that had been established by the company, and to a great extent were owners of their own homes. A school, kindergarten, library and hospital were maintained by the company. Wages were the highest in the trade. Disability benefits were allowed in cases of ill health or accident. In good times or bad, employes were never discharged, unless for serious cause. It was a rare occurrence for an employe to leave voluntarily. Conditions probably could have been no better anywhere.

The employes of this concern, maintained at their own expense, a benevolent society, for the purpose of paying the funeral expenses of a deceased member. The assessments had steadily increased to a point where they were regarded as unbearable. Medical examinations, at their own expense, were then required from new members; still the assessments increased. The association, like many similar

associations found itself bankrupt. Its claims could not be paid for two years after they matured.

The head of this association, seeking some means of continuing the insurance of the members, learned of group insurance. He proposed that the association be taken over under the group plan. The matter was brought to the attention of the employer, with the suggestion that he adopt the group plan, as a gift to the employes, but he felt that this was inadvisable, in view of what he was already doing for them. Negotiations were continued with the association. The proposition as submitted to the men contained no provision for the continuance of the insurance on an individual basis by any one who severed his connection with the group. The eventual result was that the employes, in a mass meeting, voted not to accept the proposition, on the grounds that, as many of the men were impaired risks, and others beyond the insurable age, the group proposition, once accepted, would make it impossible for any of them to seek other employment, and would make a strike out of the question. This from the employes of a concern that had never known a strike. A resolution had been passed embodying the reasons for declining the group proposition and this resolution was submitted to the employer. The group policy was accepted by him, for double the amount that had been under consideration by the men themselves. The association was thereupon dissolved, and a vote of thanks was passed to the employer. Some months later the employer decided to pay a cash bonus, equal to one month's wages, to every employe in his establishment. Upon the announcement being made, a committee of employes was appointed to wait on him to ascertain if this meant the discontinuance of the insurance; and if so, to request that the bonus be not paid and the insurance continued. They were of course informed that the insurance was to be continued.

Group insurance was first put on the market in the early part of 1911. The company that originated it made little effort to push the business. Experience was lacking, and it was safer to feel the way cautiously. Restrictive laws placed a limit on the total amount of business that might be secured by a company in any one year, and the limit, which included the amount that might be written on the group plan, was to be easily obtained. The group business began to grow. Newspapers began to report concerns that had insured under the new plan. One employer would tell another. Letters

of inquiry began to reach the offices of the insurance companies, for other companies had begun to issue group insurance. Without any particular effort, the group plan had become widely known. Recognizing the advantages to the masses in group insurance, laws were enacted, providing that group insurance should no longer be considered as a part of the business that was included within the legal limit.

POPULARITY OF GROUP INSURANCE

The experienced life insurance agent is not unaccustomed to opposition. In fact, he thrives on it, and if he fails to encounter it, he suffers from the lurking suspicion that he must be soliciting one who knows himself to be uninsurable. To his never ending wonderment, he encounters no opposition in soliciting group insurance. Only the employer is solicited, and his attitude unvaryingly has been one of open-mindedness and interrogation. Procrastination and delay are met with because of the desire to investigate and verify, but there is always the expressed willingness to act when finally convinced.

Group insurance has received a great deal of attention from the daily press, in the form of news items of concerns that have adopted it for their employes, but there has so far been very little editorial comment on the subject. Trade journals have discussed it at great length, usually at a time when some house connected with their trade had issued the announcement of its adoption. The following editorial is from one of the leading music trade journals, and appeared after such an announcement:

The decision of the distinguished house of Steinway to take out a large amount of insurance for its employes, is significant of the disposition of prominent employers to go beyond the actual paying of wages in an effort to promote the welfare, and also to do something to secure provision for the future, of their employes.

Such efforts have provoked from labor, and especially from labor leaders, the charge that this is an admission, on the part of employers, that they do not pay sufficient wages, and that it would be better for them to take the money which is paid out in the shape of insurance premiums, or for libraries or hospitals, or for sick funds for their employes, and pay it out in the shape of increased wages.

This argument is a poor one. Wages must always be more or less regulated by the market, and the competition of others engaged in the same line of business.

Where, however, a concern by long years of effort, the possession of superior manufacturing facilities and able business management, has won a high position in the industrial or commercial world, it is apt to enjoy a superior prosperity, and

when, out of that superior prosperity, it takes a certain percentage, and devotes it to improving the condition of its wage earners, it should at least, be credited with a desire to be more than just to those who have contributed to its prosperity.

The insurance taken out by the Steinways, we understand, covers about thirteen hundred employes, and means an aggregate protection of nearly two-thirds of a million. . . . . The attitude of the house is shown by the fact that in each certificate appears a statement to the effect that the Board of Directors of Steinway & Sons has ordered that it is given in acknowledgement and appreciation of loyalty and continued service and coöperation that tend to the continued success of the business. . . . . Incidentally we may say that we believe in the long record of years, there have been fewer labor disturbances in the Steinway factories than in almost any other industrial concern of equal age, distinction and prominence.

THE PLAN EXPLAINED

The plan of group insurance is founded upon the "yearly renewable policy," with specially calculated premium rates, which are payable monthly, and which are based upon the attained age of each individual and increase annually. Policies issued on the yearly renewable plan to individuals have always proved disappointing, as the cost advances with advancing years, and the plan is really valuable for only temporary purposes when covering but a single life. But for group purposes, the opposite is the case, and it is the only plan that is adaptable to all the requirements of an all inclusive plan. Under the yearly renewable plan, the premium charged for each age provides only for the expected number of deaths and the operating expense for the ensuing year. This permits of an extremely low premium rate because a reserve fund is not maintained, not being required to level the cost, and there is no expense involved in the care of investments, there being practically no funds to invest. Medical examination fees are avoided, together with the great expense of elaborate individual policies. Commissions to agents are unusually low, and in many cases none have to be paid, as the business is frequently secured by the home offices directly. As but one premium is collected monthly on an entire group, the cost of collection is infinitesimal. The very economy of this arrangement makes it necessary to terminate the insurance of the individual in the group, upon the severance of his relations with his employer. It is manifestly impossible to deal with him upon an individual basis without enormously increasing the expense of doing business, and the group premium rate has not

been calculated with the possibility of having this additional expense charged upon it. Even if it were possible, an employer would be opposed to continuing in his group one who was no longer directly connected with it. This provision must not be understood to operate against any employe who is temporarily removed from the pay roll because of accident or ill health, or against one who is temporarily laid off for any reason, but who is expected to return to his work. Cases of this character are regarded merely as suspended employes whose insurance may be continued by the employer. Permanently disabled employes may also be continued in the group, and the amounts for which they are insured will be paid upon death. Moreover, the overhead expense of the group business is very low, requiring but a small office force to care for a very large business. This is due largely to the simplicity of the accounting, only changes in groups being considered, such as deaths, terminations, and the addition of new lives.

While the premium rate of the individual in the group will advance from year to year, experience has shown that the group premium, the amount paid month by month by the employer, and which is the total of the combined individual rates, will not advance for some years, but on the contrary will show a steady decline. This decline has been found, in participating plans, to be due to older employes dropping out and being replaced by younger lives on whom a smaller amount of insurance will depend, and through increased refunds or dividends made possible by lowered expense as the business expands. The decline in cost has been in many cases both in the cost per thousand and the cost per individual. It is possible of course with a small group, as in a bank, that there would be no changes during a policy year, and as a natural consequence at the end of the year, each individual in the group being one year older, the rate would advance slightly. In most cases it is fair to assume that the initial rate will be practically stationary, and without marked increase or decrease.

FORMS AND KINDS OF POLICIES

The group policy, of which but one is issued to a group, and which is retained by the employer, is a blanket form, usually without conditions other than the payment of the premium. It must be accompanied by either a register or card index, recording the names

of the individuals covered, the respective amounts for which they are insured, names of beneficiaries, amount of individual premium, and other necessary information. Where the card index is used, upon death or termination of service the appropriate card is removed form the index and the company notified. A new card is furnished upon the addition of a new life. Appropriate forms are supplied the employer for use when changes occur. While there is but one policy, individual certificates are issued to each employe in which are named the beneficiary, and the amount payable at death, the certificate also reciting the conditions under which it will remain effective. These conditions are that the employer shall continue to pay the required premiums, and that the employe shall remain in his service.

Some companies include in their group certificates what is known as a disability clause. It provides for the waiving of any further payment of premium by the employer on account of an employe who has become permanently and totally disabled; and for the payment to such totally disabled employe, beginning six months after the occurrence of the disability, of five per cent of the face amount of his certificate, the payments to continue for twenty years, or until prior death. At death it provides for the payment to the beneficiary of any difference existing between the amount called for in the certificate, and the amount already collected under the disability clause. This provision is of doubtful value. The payments under most group certificates would be pitifully small, too small to be of any real value, except in the sense that anything is better than nothing. And small as they may be, the payments are deducted from the death claim.

Group policies are issued under two general plans, known as the participating, and the non-participating. Under the participating plan, the group policy includes a table of premium rates that is not subject to revision. It provides for a cash refund to the employer at the end of each policy year, which refund represents the difference between the gross amount paid by the employer, and the actual amount it has cost the company to carry the risk. Group insurance, under the participating plan, is sold at actual cost, based upon the company's experience as a whole. Its experience with any one group is not considered. Terminations in and additions to the

group are taken into account at the end of each month, and new calculations of the premium due are made.

The non-participating plan, as its name implies, provides for no refunds. The premium rate is fixed, and is intended to be sufficiently large to cover all contingencies. Any margin remaining at the end of the policy year is retained by the company. The initial premium rates are somewhat lower than those of the participating companies, but they lack permanence. The non-participating policies provide that at the end of a term of years, if the company deems it necessary, the premium rates may be revised. This term may be anything from five to nineteen years, varying with the size and importance of the group.

Group insurance has now become so widespread that it would not be possible to give here a list of the concerns that have adopted it. To a great extent, such a list would be a repetition of the ordinary news of the day. It would include concerns engaged in almost every branch of human activity, banks and trust companies, manufacturing concerns, stock brokerage houses, department stores, insurance companies of all kinds, municipal departments, water, gas and electric light companies, and electric and steam railroads. The Union Pacific Railroad is the most prominent patron of group insurance, having only recently concluded the largest transaction in life insurance history, insuring thirty-five thousand employes, each to the extent of one year's salary, under a group policy calling for about $30,000,000 of insurance. The Studebaker Corporation, Montgomery Ward & Company of Chicago, and the B. F. Goodrich Rubber Company, have also adopted it for groups numbering thousands of employes.

Statistics as to the actual number of group policies in force, the amount of insurance they represent, and the number of lives covered are not yet obtainable, but it is known that one company during 1916 issued more than $40,000,000 of insurance under this plan, which is still far from widely known. That it will become generally adopted in the near future is evidenced by the advances already made, without advertising, practically without solicitation. It satisfies a demand that it itself creates, and responds to a great human requirement. It is the foundation upon which will arise a more complete understanding between employer and employe. And when employes are selected with care, and with regard

to their adaptability, and placed under foremen and superintendents who have some degree of knowledge of the psychology of managing and getting along smoothly with their men; when discharges are made only for cause, and after investigation, and then only with the approval of superior authority, the employer is likely to discover that many of his former difficulties have assumed much smaller proportions.

FRATERNAL INSURANCE IN THE UNITED STATES: ITS ORIGIN, DEVELOPMENT, CHARACTER AND EXISTING STATUS

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The origin of fraternal insurance must be sought in those social and communal instincts of the human family which from remote ages have led its members to coöperate for their common welfare. Fraternal organizations of one kind or another for mutual assistance have existed in the various countries from time immemorial. Under the old Roman Empire such societies were so numerous as to call for regulation by the state. During medieval times we find them in large numbers in the form of organized guilds for social, religious, and commercial purposes throughout the different countries of Western Europe. Those of England were the forerunners of the numerous friendly societies which succeeded them and whose special purpose was the relief of their members in case of sickness and the provision of a burial fund in case of death, to which was sometimes added a pension on attaining a certain age. It was from these British friendly societies that the idea of fraternal insurance was introduced into the United States at a comparatively early date in our history. But until after the middle of the last century no well directed effort was made to regulate their management in Great Britain. They were usually organized on fallacious principles. Contributions were exacted of the members regardless of age or condition of health and with no intelligent conception of the cost of the benefits which they promised. As a consequence their failures were so numerous as to become a national scandal, until their proper regulation was undertaken by the British Parliament which resulted in a thorough investigation by actuarial experts and a scientific determination of the principles on which the business must be conducted, and the rates which must be charged to secure its safety. Not until 1875 was legislation procured which placed the system of friendly societies in Great Britian on a comparatively sound foundation. The social affiliation between the

members of these British societies, however, was in many cases so strong as to hold their membership together in spite of their technical insolvency until the necessary corrective measures could be applied. In fact such social affiliations are the fundamental basis on which the successful operations of a genuine friendly society must rest.

The development of friendly societies—more commonly known as fraternal insurance societies—in America took a somewhat more radical form than in Great Britain. With the exception of a few, like the Free Masons and the Odd Fellows, they generally attached less emphasis to the social features and more to the insurance feature. The majority of them have directed their chief work to granting death benefits. Sick benefits, when allowed, are usually cared for by subordinate local lodges.

The development of fraternal insurance in the United States has been largely shaped by the same social and economic influences which have controlled the development of ordinary life insurance. So-called fraternal societies have been largely utilized in the past for the purpose of furnishing a supposedly cheap form of life insurance with too little regard for the benevolent features which are so essential to its success. The same social and economic conditions which caused the remarkable development of life insurance in the United States during the last half century resulted in the great growth of fraternal and benevolent associations. The rapid growth of cities and the change from an agricultural to an industrial population were largely responsible for the more recent remarkable development both of life insurance and its allied forms of benevolent societies. The growth of the latter was attended with the same disregard of sound insurance principles and ignorance of the actual cost of the promised benefits as in Great Britain. The results were even more disastrous. The spirit of conservatism which controlled the expansion of life insurance in Great Britain was lacking in America. The work of the associations instead of being localized within the limited area of a small island was often expanded over a wide territory.

The great expansion of life insurance which took place after 1860 was attended by a corresponding development of fraternal and so-called benevolent societies which simply aimed to provide a cheaper form of insurance than was furnished by the regular com-

panies. These associations sprang up in great numbers in the years following the sixth decade of the last century. The ordinary business corporations had already been subjected to legal restrictions designed to secure their solvency and proper mangement, but fraternal benefit associations, being presumptively of a benevolent character, were not subjected to such restraints. The consequence was that, in addition to the genuine fraternal societies, another class of associations grew up claiming to be fraternal in their character and conducted on similar lines but usually having no lodge system like the true fraternals and none of the social features. Such associations were in effect disguised life insurance companies, carried on like them for profit and seeking to compete with the regular companies by selling life insurance at rates much lower than those which the regular companies were forced to charge. This they were able to do because they were not compelled to put up the legal reserve required of the regular companies. Their contracts in consequence could not be carried out. Their numerous ultimate failures became a notorious scandal. They were popularly known as coöperatives or assessment companies, and it was not always easy to distinguish them from the genuine fraternal societies which they sought to imitate. Both of these classes of institutions, like the British friendly societies, were conducted on a scale of rates that was wholly inadequate and which at first usually took the form of assessments collected from the members to pay death claims as they occurred. They were conducted for the most part like the British societies in ignorance of the true principles of insurance.

The probability of death and the consequent cost of insurance increase with age. It is therefore necessary for the insured person either to pay a premium increasing with his age or, if he is to pay a uniform level premium, it must be excessive at the start in order to create a fund in the hands of the company from which to make good the deficiency in later years. This vital feature was ignored by the fraternal and assessment orders until bitter experience compelled its recognition. They saw the ordinary life companies, which were for the most part also young, charging premiums which were enormously in excess of their current death losses and accumulating year after year a constantly increasing reserve fund while their loss rate itself showed no apparent increase. They jumped to the conclusion that the reserve fund was a needless exaction

from the policyholders and that they could grant insurances at the current loss rates of the regular companies. They could not be made to see that the companies were still new and their business increasing at a rate which kept their average membership young notwithstanding the increasing age of individual members. The heavy lapse rates of the policies, too, by weeding out the older membership, helped the delusion. That neither the average age of the membership nor the average death rates of the regular companies sensibly increased as the years went on was a favorite argument of the benevolent orders in defense of their inadequate rates and a strong weapon in their competition for business.

Another favorite argument was the condition of the ordinary town and village community whose average ages remained the same while the individual members were continually growing older. The births equalled the deaths and so preserved the average. So the constant new additions to their membership would keep down their average age. Again they could not be made to understand that, unlike the town community, their members all started young together and their average ages were bound to increase until an equilibrium was reached dependent on the relative rates at which new members were secured and the older members were retired through lapses and deaths. Before this equilibrium age could be attained the societies had already begun to feel the stress of their increasing death losses, and their members had begun to change their membership to newer societies which could furnish cheaper insurance. Years would often elapse before this stage was reached if the membership increased at a rate sufficiently rapid. Meanwhile the society would go on in the blind belief that all was well until the increasing death rate gave warning that their rates must be increased. The attempt to do this was sure to create dissatisfaction which resulted in an increased loss of membership and a diminished supply of new members, thus enhancing the trouble which they were seeking to escape. The process of dissolution thus started gathered momentum as it continued. The expedients resorted to to make good this growing deficiency, either by increasing the rates or reducing the benefits, were generally temporary compromises which merely relieved the situation for the time, until the growing deficiency again called for a new adjustment and created a fresh loss of membership. The end came when the burden of carrying the old members could

no longer be met by rates which had grown too heavy to be borne, and members could no longer be secured with the fact staring them in the face that they would be compelled to make good from their own contributions the deficiencies in the past payments of these older members. The ultimate disintegration of the society would follow, leaving its members without the protection which they had perhaps been contributing for years to secure.

Such has been the sad history of large numbers of these societies in the past, due to their refusal to recognize until too late the necessity of an adequate reserve to meet the increasing death losses of advancing age, and to their attempt to furnish cheap insurance at inadequate rates on the basis of its current cost. In one important respect the claims of fraternal insurance to be less costly is correct. In the genuine fraternal orders, with their systems of subordinate lodges through which their agency work is carried on, expenses necessarily involved in the agency system of the ordinary business corporations are largely avoided. The members themselves act as agents of the society. The societies, on the other hand, lose the advantages of the interest earnings on those large invested funds of the ordinary companies that so materially reduce the actual cost of their insurances. Strenuous efforts were made during the latter part of the last century to correct these defects of the system, especially by the insurance departments of the various states through legislative regulation. But such efforts were frustrated for a long time through the opposition of the members themselves, whose political influence was strong and many of whom looked on such legislation as an attempt by the regular companies to break up the system. This opposition gradually weakened as the increasing age of the societies compelled them in greater numbers to realize the imperative necessity of readjusting their rates on a sound scientific basis. At last the time became ripe for radical action and a convention of the insurance commissioners in the various states undertook to frame a bill which would compel these associations to gradually increase their rates and accumulate a reserve which would place them on a basis actuarially sound and would subject them like the regular companies to the supervision of the various insurance departments of the states. Such a bill, known as the Mobile Bill, was adopted by a convention of the commissioners meeting in that city in 1910, and was recommended for passage to the various state

legislatures. It of course encountered strong opposition, especially on the part of societies that felt that their deficiencies had grown too great to comply with its requirement, and that they would be forced to close. But the principles of the bill have gradually been adopted until now it has become a law in thirteen of the states. The effect has been that not only the societies belonging to those states but the larger societies, even though located elsewhere but which were doing business in such states, were forced into compliance.

Before this crucial step had been taken by the commissioners, the better class of fraternal societies had already realized the necessity of a radical change in the system and had organized a Fraternal Congress in 1886 composed of some forty of their leading organizations. This Congress collected the experience of its members and framed a mortality table showing the actual death rate among them, and in other ways sought to bring about the needed reforms. One great difficulty, however, in the application of such a table was the wide diversity of the classes from which the members of these societies were drawn as well as their diverse financial conditions, both of which seriously affected the death rate which must be expected.

Under the Mobile Law a definite period is allowed during which the society must gradually build up an adequate reserve which, like that of the old line companies, will make good deficiencies in their rates, and place them on a similar basis of commercial solvency. The changes in the system exacted by this law are still in process of being effected and it is too soon to state with certainty the outcome. The very recent experience of the Royal Arcanum, one of the largest of these societies, will illustrate its operation.

This society was organized in 1877 in Massachusetts and embraces in its membership the best representatives of the fraternal orders. Its subordinate councils are scattered throughout all the more healthful states and territories. After twenty years of rapid growth, it at last reached the stage where radical reform in its system was imperative. Its old post mortem system of assessments at death was discarded for definite annual payments of largely increased amount and the creation of a large emergency fund. After fifteen years' experience under its revised plan it finds itself unable to meet the requirements of the Mobile Law and is compelled

to again practically double its rates in order that the requisite reserve shall be secured within the alloted time, which expires in 1920. Of its two hundred and forty thousand members, it is estimated that from sixty to a hundred thousand may resign from the order through the dissatisfaction which had been created. The hardships and disappointments involved in these resignations will be great. But the crisis once successfully passed, it is not unreasonable to anticipate that the society may start on a new upward career, and on a foundation that will thereafter assure its members of the ultimate payment of all its obligations without future changes in its rates or modifications of its plan.

The great multiplication of friendly societies in the country practically began at the close of the Civil War. Until about 1888 no serious attempt at their regulation by legislation was made. They were regarded simply as charitable organizations. Neither the legislatures nor the courts were able to distinguish between their fraternal and their business features. Even today some of the courts and legislatures still incline to the view that they do not undertake to furnish indemnity and are therefore merely charitable in their nature. But the prevailing more advanced views regard them as business corporations obligated like all others to strictly carry out their contracts, irrespective of their financial ability.

The first practical legislation, aimed at their regulation, was adopted by the states of Massachusetts and New York in 1888 upon the initiation of representatives of the societies themselves. The Fraternal Congress, representing the best class of these societies, soon after framed a uniform bill for their regulation, which after several years of discussion was adopted by several of the states in 1893. From this time until 1910 there was friction between the Congress and the insurance commissioners over amendments to the bill which lacked the elements necessary properly to safeguard the business. The efforts of the Congress, imperfect as they were, to place it on a securer foundation, were resisted by a confederation of the weaker societies, known as the Associated Fraternities, who opposed any governmental interference. Because of this opposition no successful effort to improve the societies' uniform bill could be made and at last the commissioners determined to draft their own measure which resulted, as has been said, in their framing the Mobile Bill as a joint measure whose passage they could recommend to their

several states. Meanwhile since 1895 the societies' bill has been adopted by some twenty states.

In 1895 the better class of the fraternals began a voluntary readjustment of their rates which soon became the order of the day and which was supplemented by framing the Fraternal Congress mortality table. These reforms, however, were, as has been said, of a compromise character affording a mere temporary relief. The aim still was to avoid the accumulation of an adequate reserve and to meet their deficiencies by emergency funds supplemented by moderate increases in their rates. They depended on their lapses and new membership to do the rest. The adoption of the Mobile Bill was at first strongly opposed by the fraternal orders and even by some of the commissioners themselves as too radical a measure with which it would be impossible for the societies to comply without a loss of membership that would be destructive. Another serious barrier to the proper increase of rates was the tendency of the courts to treat the undertakings of the societies with their members as contracts giving vested rights to the latter and confining any rate increase to new members, thus throwing upon the latter the burden of making good the deficiencies.

A most important decision on this point has just been rendered by the United States Supreme Court in the case of Supreme Lodge *v.* Mims.[1] It is held that where a fraternal society has the power to alter its contributions at will it may increase its rates notwithstanding a provision in its laws that monthly payments of its members shall continue the same during their membership. This provision is not to be regarded as a contract but merely as a regulation subject to the possibility that an increase of rates may be necessary in order to pay its benefits. What is more, in this case the provision as to payment allowed the society as an alternative, if the assessments were inadequate, to reduce the payment accordingly. Nevertheless, the court declared that adequate payments were essential to the life of the corporation and it was entitled to fall back upon its general charter right to amend its laws in order to overcome a provision in the laws that the assessments should not be increased. It was not compelled to resort to the alternative of reducing the

[1]*Insurance Law Journal*, p. 255. To the same effect is the case of Holt *v.* Supreme Lodge, U. S. Circuit Court of Appeals, Seventh Circuit, *Insurance Law Journal*, January, 1917.

benefit. The society was of the nature of a club which, notwithstanding a stipulation in the laws to the contrary at the time of a member joining, might under its chartered right increase its rates to a figure required to meet the benefits essential to the satisfactory performance of its mission.

This radical departure from the previous prevailing disposition of the courts to treat such limitations of assessments as vested contract rights promises to remove one of the great hindrances in the way of increasing the rates of old members to an adequate figure in order to comply with the requirements of the Mobile Law. If the doctrine here laid down by the highest court in the land is accepted by the various state courts, the most serious obstacle to the correction of their rates by the fraternal orders will be removed. As the members of the societies have become more enlightened regarding the character and requirements of their business, the opposition to their proper regulation has gradually diminished. In 1914 the Associated Fraternities united with the Fraternal Congress, and the joint organization gave its support to the efforts of the commissioners to secure adequate government regulation, which was still opposed, however, by a third reactionary organization of the weaker societies known as the Federated Fraternities. Such progress in the work of reform had been made by that year that the Mobile Law had already been adopted by eleven states, and its amended form, known as the New York Conference Bill, by seventeen.

The leading features of the latter, as expressed in the Insurance Law of New York, will show the nature of the requirements now made to insure the ultimate soundness of fraternal societies. The fraternal society is defined as an organization conducted without profit solely for the benefit of its members under the lodge system and a representative form of government and paying death or disability benefits. It must have a supreme lodge as a governing body made up of representatives of the various local lodges whose members are admitted by prescribed rules and which hold meetings at least monthly. It may issue benefit certificates for a term of years as well as for life but may not promise endowments except under certain conditions. If its rates have been properly readjusted, the society may accept half the payments in cash and charge the balance with compound interest against the certificate. Only certain specified relations may be made beneficiaries and they can take no

vested interest. The members may change the beneficiary at will. Nor can any beneficiary pay the contributions required of the member. The constitution and laws of the society with the member's application constitute the contract of the member and the former is subject to change. The society may maintain an emergency fund but no individual member shall be entitled to any specific share except under certain conditions. If the society is found to be maintaining a 4 per cent reserve by the American table, it may grant extended and paid-up insurances and withdrawal equities not exceeding the reserve. Endowment benefits, and benefits payable at seventy, may also be granted. Certificates must be issued to the members specifying the amount of benefit and stating that it, together with the constitution, laws and application, form the contract. The society's laws must state the specific object of the payments and what portion can be used for expenses. The mortuary fund may not be used for this purpose. The Fraternal Table at 4 per cent shall be a minimum standard of valuation except where the society has its own experience framed from at least twenty thousand lives. If at the valuation at the close of 1917 the company shows a deficiency and such deficiency shows an increase in the triennial valuation of 1920, new members must be placed in a separate class at adequate rates and the Superintendent of Insurance, if he deems it best, may institute proceedings to wind up the society. In lieu of this requirement, however, the society may provide in its by-laws for increasing the contributions of the members if their share of the annual losses is in excess of their annual payments. The Mobile Bill requires also that if in 1917 the assets are less than 90 per cent of the liabilities the deficiency must be decreased at least 5 per cent during the succeeding three years.

Such are the leading features of the most advanced legislation on this subject. It ranges from this high standard to practically no effective legislation in some of the states. It is obvious that a compliance with this standard will tend to assimilate the fraternal society more nearly in its character with the ordinary life company. A similar system of invested reserves, though perhaps smaller in amount, will be exacted. Instead of assessments having little regard to the actual cost of insurance, they will approximate such cost. Contributions for expenses can no longer be applied to the payments of benefits, nor the reverse. Whatever advantages may be de-

rived from the social features and the agency work of the members themselves, will remain, but these will naturally be diminished as the cost of membership increases and the society approaches the form of a business organization. The expenses of procuring new members will naturally increase through the employment of paid solicitors. But what is most important, the promised benefits will be more definite in their character and the assurance of their ultimate payment will be greater. There will be the stronger need for those social relations of the lodge system which must always be at the foundation of genuine fraternal orders. What will be the ultimate issue, it is too soon perhaps to predict. But the tenacity with which the system has been perpetuated in spite of its defects gives strong assurance that the better societies will be able to reorganize on a basis which will be permanent. The losses due to their failures heretofore have been more in the shape of disappointed expectations than in actual wastage of funds. They have furnished temporary insurance to their members at a minimum of cost, though often unable to pay the promised benefits to the long livers on account of their insufficient rates. A more intelligent and honest class of men have succeeded to their managment and their members are being educated up to the requirements of their work.

In the face of its defective character, fraternal insurance has been steadily growing in its membership and in its beneficence. In 1896 the societies forming the national Fraternal Congress, which included the great body of the true fraternal orders in the country but excluded the mere assessment orders which maintained no genuine lodge system, had a combined membership of over a million and a half and benefit certificates in force of over three billion dollars. They had paid out in benefits more than twenty-eight million dollars during that single year, and over two hundred and thirty millions during the previous ten years. Nineteen years later the strictly fraternal orders doing business in New York which embraced the principal societies of this country reported a membership of over five millions and certificates in force of over six billion dollars. But as against their enormous future payments promised in their certificates they held assets of only about one hundred and forty-six millions, or little more than one dollar in fifty. The regular life companies doing business in that state in the same year had between seven and eight hundred thousand policies in force, insuring over

fourteen billion dollars, against which they held assets of between four and five billions or about fourteen dollars in fifty. In other words the regular life companies were required by law to carry about fourteen times the amount of funds of the fraternals in order to maintain their technical solvency. The comparison of these figures shows the threatened future deficiencies of the fraternal orders which the recent legislation is seeking to correct. It is obvious that no scheme of assessments, if deferred until these enormous obligations become due, can make good the deficiencies, and the legislation is aimed to compel an adequate reserve while there is yet time for its creation.

Roughly speaking about five-twelfths of all the lives insured in the United States, aside from industrial insurance, are carried in fraternal societies, the remaining seven-twelfths being in the regular companies. The industrial companies, however, have more than double the membership of all the others combined, though the amount insured is less than that of the fraternals. The mere assessment companies doing business for profit have been largely weeded out during more recent years either through failure or through more or less successful changes in their systems to conform to that of the old line companies. The genuine fraternal society is in its nature a social club for the mutual aid of its members as well as an insurance organization. Its character as a club has been generally recognized by the courts. A society is made up of local lodges whose representatives combine to form the grand lodge which is the governing body of the whole. Each local lodge is the social and business center of its members. It collects the dues and assessments and independently cares for the sick and disability benefits of its own members. The death benefits are cared for by the grand lodge. The dues and initation fees when exacted are used to meet the expenses of the society. The benefits are met from the assessments or contributions for that purpose by the members. They are essentially coöperative bodies having no capital and yielding no profit. Their promised benefits are not in the nature of legal indemnities and cannot be used as collateral securities or be attacked by creditors. The agreement between the society and its members is not a policy or business contract as in commercial life insurance, but is embraced in a certificate of membership in which the member agrees to comply with the laws and regulations of the society then

or thereafter in force. This general agreement is supplemented by the statements in his application. The benefits themselves are prescribed by the laws of the society and the claim of the member is by virtue of his membership. He has no vested property rights in the society until the claim has actually matured. A beneficiary can be designated only within the prescribed relationships; such beneficiary takes no vested interest and may be changed by the member at will. In a word fraternal societies do not furnish commercial life insurance in the nature of an indemnity, but a fraternal assistance or relief.

The right of assessment in case of deficiencies, which they generally retain, technically relieves them from the charge of legal insolvency when unable to meet their claims, especially when the promised benefit is limited to the amount which the assessment may yield; but it does not relieve them from the practical effects of insolvency when such assessments fail to produce the amounts needed to meet the expected benefits. This technical loophole, however, has proved an important protection in the past against their legal adjudication as insolvents and against legislative interference. Their methods of assessing contributions differ widely, since they were forced to increase their rates and to recognize the effect of age on the cost of insurance. The earlier attempts were directed to create an insufficient emergency fund in place of a proper reserve while increasing their rates only according to some assumed current cost at the various ages; often, too, relying on lapses to make good deficiencies. Sometimes, where their laws permitted, the benefits were scaled. But this the courts refused to sanction unless it was clearly authorized. Sometimes a step rate plan was resorted to, the rates remaining level through a group of ages and being increased as the next succeeding group was reached. Sometimes the rates were fixed according to the age attained by the member, at others according to his age at entry, but the last required some adjustment of their past deficiencies in case of old members if the rates were to be made adequate.

The older the society the greater, of course, were the deficiencies and the more difficult it became to correct them, especially in view of the alleged rights of such members to exemption from increased rates. A compromise was sometimes attempted by permitting the member to continue his original rate upon giving a lien

on the promised benefit equal to the deficiency in the reserve. The more recent readjustments have generally been made on the basis of the age attained by the member with modifications of the rates, however, at those advanced ages where they would otherwise be prohibitory. Thus the societies are gradually being brought in line with those of Great Britain where an adequate level premium and reserve are maintained as in the ordinary life companies.

How many of the societies will succeed in reaching this standard will depend on the extent of the deficiencies to be made good, and the ability to secure new members at the increased rates. Opposition on the part of the members and heavy lapse rates at the start are to be anticipated. But past experience seems to indicate that in the end those societies which are able to stand the strain will emerge on a solid foundation for the future. Paid solicitors will be more needed to secure new members as the society approaches in its character the ordinary business company and the expenses of management will naturally increase, all of which emphasizes the importance of maintaining the social and fraternal features. It would be a great mistake to assume that their failures in the past represent corresponding moneyed losses to their members. Their moneys have been spent in fraternal insurance benefits. But these have been in the nature of term insurances except to the short livers. The loss has been the failure of the long livers to receive benefits which they had been promised but which their payments were insufficient to provide. In the face of all their past defects it has been estimated that they have collected and paid for the benefit of their deceased and sick members more than six hundred millions of dollars during the last forty years at a moderate cost of management. They continue to meet a want in the community which commercial life insurance can but imperfectly supply. The fraternal instinct is today as strong in the human breast as when the trade and religious guilds were dominant in Western Europe, and it is only reasonable to expect that the fraternal orders under more enlightened management will continue their beneficient mission.

THE EXEMPTION OF LIFE INSURANCE FUNDS FROM TAXATION

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The discussion preceding the enactment of the federal income tax law in 1913 reopened an issue on which life insurance officials and legislators have disagreed for years. Though insurance companies have contended that life insurance funds do not offer a legitimate field for taxation, they have been called upon yearly to pay larger and larger amounts in taxes to the various states in which they operate. The bill introduced in Congress offered no exemption to an individual who protected his dependent family through life insurance from becoming public charges at his death, or who, by the same agency, provided for his own old age. Nor did it exempt the income of the life insurance company, the funds of which are a standing guarantee against family and old age dependency.

The discussions of this bill, like most controversies over the question of taxing life insurance funds, have consisted in dogmatic assertions on both sides unattended by any attempt at scientific analysis that would give a basis for testing the arguments. It is doubtless true that most life insurance men accept without proof the statement that life insurance funds should never be subject to general taxation; it is equally true that legislators, in their search for ways and means, are inclined to choose the method which offers easy collection and has the least injurious effect on party success, regardless of the scientific character of the taxation problem.

Any permanent settlement of this controversy in the near future is unlikely. With the extension of government activities there is necessity for increasing revenue, and new laws have a tendency to reach untaxed sources of wealth. These laws are often passed, however, without being submitted to the test of a really adequate theory. Those who oppose the taxation of life insurance funds, having a perfectly good case to defend, have too often devoted their energies to attacks on particular laws and have not made clear

the underlying reasons why life insurance funds should receive special consideration.

BASIC REQUIREMENTS OF A TAX SYSTEM

The statement of principles on which life insurance taxation shall be based is not a pleasant task. One faces two bitterly opposing camps, either ready to fall upon the first heterodox statement and to cry "traitor." It is a profitable task, however, if agreement is ever to replace the present conflict of opinion.

Taxes are general or specific. Taxation of any kind is justified on the ground that administration of government results in benefit to the governed. In a broad sense, the function of government is the care of the health, morals and well-being of its subjects and the funds necessary for the conduct of such activities can be obtained by general taxation. The relationship between work performed and revenues obtained is indirect as, for instance, where a tax levied on property is used for the supervision of public health or for the support of judicial tribunals. In extending the field of government, it has become increasingly necessary to carry on special activities and the revenues for such purposes are collected directly from those benefited and should cover only the cost of service rendered. Thus the federal government conducts the postal service and collects two cent for each letter carried. The feeling that the postage tax should not be greater than the cost of this service is reflected in the demand for penny-postage. The government is likewise called upon from time to time to supervise particular institutions and the cost of such supervision may be charged directly.

With government thus functioning as general and specific—for the benefit of all, and for the benefit of special classes of the governed—it is proper to distinguish two correlative types of taxation: general taxation, to pay costs of government activities in the benefits of which the whole people share; and specific taxation, to cover the costs of benefits accruing to a limited group.

The justice of any system of taxation may be tested on different grounds in so far as we are dealing with these two fields of government enterprise. It may be accepted as a working principle that the conduct of specific operations such as carrying the mails shall be paid for by those who use the mails, or that specific institutions which receive the benefit of government supervision shall be taxed

directly to pay its cost. Little disagreement with this principle will be found. An equitable system of general taxation is much more difficult to formulate. Adam Smith stated its fundamental premise when he said "The subjects of every state ought to contribute to the support of government as nearly as possible in proportion to their respective abilities: that is, in proportion to the revenue which they respectively enjoy under the protection of the state."[1] This principle is accepted by John Stuart Mill, and in his elaboration of it he interprets it to mean that "equal sacrifices ought to be demanded from all."[2]

General taxation should be levied upon surplus. It is true that much popular misunderstanding results from the attempt to explain these doctrines in current phraseology, and clearness is in no way attained by a study of tax systems in the United States. It is quite certain, however, that if Mill were restating his doctrine at the present time he would do so in terms of the standard of living. He would justify any tax system in accordance with the way in which it might affect individual incomes. A tax falling upon the person whose income is insufficient, or only just sufficient, to maintain physical existence and rear a family would be destructive and therefore socially undesirable. All taxes should fall, in so far as possible, on those who enjoy incomes in excess of this amount. Fortunately, the decision as to what is a minimum standard of living need not enter the present argument. The sociologists may be permitted to establish the limit and we may agree not to tax individuals whose incomes fall below this mark. We may say with certainty that the government is justified in taxing the man whose annual income is $100,000; but the advisability of taxing a $2.00 per day wage may await the determination of the minimum standard.

While the amount necessary to maintain this standard need not be stated for the present argument, the factors which it includes do require statement. It means more than the food, clothing, lodging and recreation supplied by current income. It requires provision for times when income may cease through death, sickness, disability or old age. Recent developments of the idea of family responsibility include the belief that the man whose income may cease with death, disability or superannuation must lay aside certain

[1] *Wealth of Nations*, Book V, Chap. II, Part I.

[2] *Principles of Political Economy*, Book V, Chap. II, Sec. 3.

amounts from his weekly or yearly income for insurance or annuities to provide for family needs, should any of these catastrophies occur. Society benefits if all persons whose incomes fail to satisfy these minimum requirements are exempt from taxation. In Mill's own words, "The principle . . . . of equality of taxation, interpreted in its only just sense, equality of sacrifice, requires that a person who has no means of providing for old age, or for those in whom he is interested, except by saving from income, should have the tax remitted on all that part of his income which is really and bona fide applied to that purpose."[3] Indeed, he goes further and says that, were it possible to administer the tax, it should be based on expenditures and all savings should be exempted. But, since this cannot be done without great liability to fraud the next best thing is to exempt those amounts which "different classes of contributors ought to save."[4]

It is at this point that Mill's theory overreaches itself. Present-day social philosophy interprets his doctrine of "equal sacrifices from all" to mean the exemption of all persons whose incomes will not purchase the present necessities of life and insurance against loss of income in the future, and the taxation of all who enjoy a *surplus income* beyond these minimum requirements. This is thoroughly consistent with the doctrine originally propounded by Adam Smith, and accepted by Mill, of taxing those who have ability to pay. The taxation of expenditures only opens the way for the transmission of large unearned incomes to heirs. Savings should be encouraged in so far as they are used for the education and equipment of children in order to give them the best possible opportunity to develop their talents and make of them socially useful citizens. But savings intended to furnish children with an unearned income that will support them in leisure and idleness may be taxed with wholesome social effect. Unearned incomes are limited by the imposition of an inheritance tax; and it is proper to limit them also in the process of accumulation by a tax on surplus income.

Application of these principles to the taxation of life insurance. The theory of taxation here outlined may be applied to the taxation of life insurance funds in the following manner. Specific taxation to pay the expenses of government supervision of the life insurance

[3] Mill: *Principles of Political Economy*, Book V, Chap. 2, 4.

[4] *Ibid.*

companies is fully justified so long as the tax does not exceed the expenses of such supervision. Taxation for general government purposes is justified only in so far as life insurance funds represent something more than a sufficient provision of the necessities for maintaining a proper standard of living and providing minimum savings for dependents and for old age.

There are two direct means of taxing life insurance funds: a tax on life insurance corporations and a tax on an individual's provision for life insurance. The corporation may be taxed on its assets, on its premium income, on its investment income, or on its profits or surplus. An individual's provision for life insurance may be taxed while being accumulated or when paid to beneficiaries. It is taxed in the process of accumulation when a law taxing income fails to exempt those portions of income used for the purchase of insurance or old age protection; it is taxed after being accumulated, if the income tax law fails to exempt the proceeds of life insurance contracts when paid to beneficiaries in immediate cash or in installments.

Taxation of life insurance companies. Taxes on life insurance corporations are justified in so far as they pay reasonable expenses of government supervision; more than this amount may not, in strict theory, be collected unless life insurance funds comprise something more than necessary savings for dependency and old age provision. The company which operates on the stock plan and each year diverts a portion of its funds for the payment of dividends on stock is to this extent more than an insurance and savings institution and may not object to the imposition of a corporation tax on the part of its funds so diverted. This would be a tax on the "gains or profits of trade," in the words of the English income tax law. A purely mutual insurance company has no such *profits of trade* and either must not be taxed at all or on a different basis. If we were to accept fully Mill's rule that all savings be exempt from taxation, there would be no basis whatever for taxing the mutual company; but the principle stated on page 126 and the principle that has gained acceptance in English tax laws is to exempt savings only up to a certain minimum and to tax all over this amount. If this rule is accepted as a basis for taxing individual incomes it must be accepted likewise in the case of corporate incomes. The tax authorities are then justified in imposing a tax upon all life insurance corporations

whose assets represent provision for any individual beyond the minimum standard accepted. It is plainly impossible to tax such corporations in strict accordance with the amount of excess savings reflected in their assets. The method adopted will necessarily be only a rough approximation to theoretical requirements. Taxes on assets, on premium income or on investment income are justified, for purposes other than the cost of government supervision, only on the ground that savings in excess of minimum requirements are reflected in the company's assets. The measure of the stringency of such taxation should be the degree to which it discourages saving for dependents or for old age requirements.

Taxation of individuals. An individual provides for life insurance needs by devoting a portion of his income to the purchase of insurance and annuities. A system of taxation based on the principle of taxing surplus income recognizes a minimum provision for these needs as one of the necessaries of life and therefore not taxable. It is not a sufficient answer to say that the need for saving for dependents or old age is met by the personal exemption granted small incomes by the income tax. The point of this exemption is that no income below this limit is to be taxed no matter in what way it is spent. If, then, it is desirable to encourage citizens to make their own provision for old age or for dependents, it must be done by a further exemption.

The proceeds of insurance policies may be paid to beneficiaries in a single cash sum, in a fixed number of installments or as an annuity for life. It would be entirely improper to consider the receipt of the face value of an insurance policy at maturity as part of a single year's income and to tax the entire amount as such. It should be taxed, if at all, as an inheritance. Furthermore, the failure to tax the sum insured upon its payment to the beneficiary does not exempt it completely from taxation, for it is usually invested and emerges again as income.

Where the sum received is paid at maturity in a fixed number of installments or as a life annuity, the question is raised whether it is not incorrect to consider the entire amount of each periodic payment as income and therefore taxable. The claim is justly made that the amount received is only income in part; that the major portion is a return of the principal left with the insurance company. The federal income tax law recognizes this distinction between

principal and interest in an annuity income and modifies the method of assessing income tax on annuities in conformity with the idea that the principal should be exempt. This procedure does not accord with the theory that only necessary provision for the necessities of life should be exempt and that all surplus above this amount should be subject to tax. Under such an interpretation of an annuity income, a person might invest in an annuity of several hundred thousand dollars per year and enjoy it largely free from taxation, whereas the maximum of other incomes exempt from tax in our federal law is four thousand dollars. On the basis of assessing taxation against surplus, the distinction between principal and income in a taxable annuity may not be defended, and the tax shall be assessed on the entire amount of the periodic payment if above the limit for exemption.

There is no logical basis for the exemption from taxation of that part of an annuity which is principal. Like so many of our tax laws (in fact, the idea may be applied to almost any law) this method of dealing with annuities is probably based on some early decision of a purely technical character. Some one claimed exemption from an income tax on the ground that the principal of an annuity is not income, and the decision became a precedent. This is exactly what has happened under the federal income tax law of 1913. This law did not make clear its purpose in taxing annuities and the demand was shortly made for a distinction between principal and income and the exemption of the former from tax. The method of administering the law was finally cleared by Treasury Decision number 2151, which stated: "The amount paid under a life insurance, endowment or annuity contract is not income when returned to the person making the contract, either upon the maturity or surrender of the contract; but the amount by which the sum received exceeds the sum paid and coming into the hands of the person making the contract and payment is income."

Now that the precedent is established, the procedure is defended on other and different grounds. Probably the favorite argument is that the taxation of the principal of an annuity is a direct discouragement to saving. A great deal of bombast is wasted on this idea, and it is easy to raise a cry in favor of the "poor widows and orphans"; but we must not be unmindful of the fact that, in the long run, the best friend of life insurance is the one who builds that

institution on the surest foundation. It is the feeling of the writer that a tremendous mistake has been made in our income tax law in the emphasis placed on the interpretation of an annuity income, while the fundamental problem has been entirely neglected, namely, the exemption of that part of yearly income which is spent for life insurance or annuity *needs*. The way to encourage saving for these purposes is to release from taxation the money spent in life insurance premiums. The taxation of a large annuity income is taxing the fund after it has been accumulated, and it is difficult to see how this will result in decreased provision for life insurance needs. Furthermore, the exemption of such income from taxation violates the fundamental premise that taxation should be levied on surplus.

SUMMARY

To summarize the preceding discussion, governments function in two ways,—certain activities benefit the whole people; others, only special groups or classes. Taxation therefore should be general or specific in so far as revenue is used for the general good or for selected classes. Specific taxation shall aim to pay the expense of service rendered and no more and shall be levied upon those for whom the service is performed; general taxation shall be levied upon all who have "ability to pay" and this class will include only those whose incomes more than satisfy the requirements of a decent standard of living, including necessary provision for dependents in case of death, disability or sickness and for one's self in case of forced or voluntary retirement.

This theory may be used as a test of the adequacy of methods of taxing life insurance companies and individuals. The companies shall be taxed directly to pay the cost of government supervision. Further levies on them are general taxation and are supported on the ground that the assets of the companies reflect provision on the part of some policyholders for more than minimum insurance needs, that life insurance companies, in other words, have become a depository for surplus income of men of wealth. Companies operating on the stock plan and paying dividends to stockholders may be taxed further on some basis of capitalization or of dividends paid to stockholders.

In taxing individuals, the basic requirement of the theory is that all persons shall be relieved from the burden of general taxation on

that portion of income needed to guarantee a decent standard of living and to purchase a liberal amount of insurance protection against common hazards. As the federal income tax law sets a limit of $3,000 income on which no one is taxed, so it should make a second exemption of income spent on insurance premiums.

The proceeds of matured policies shall be taxed on the principle of an inheritance or an income. If paid in a lump sum, and its amount be sufficient for taxation as an inheritance, it shall be so taxed, but never as an income. If it be paid in installments or as an annuity, it is in effect an exchange of capital for an income and shall be taxed as income.

LIFE INSURANCE TAXATION IN THE UNITED STATES

Existing tax laws in the United States may be examined in their application to life insurance funds and may be tested by the principles here stated. Generally speaking, life insurance is subject to tax by one or more of three governmental bodies, the federal government, the state and the municipality. The first two will be considered in this paper.

State taxes. The state, being the governing authority with the power and duty of supervising life insurance corporations, taxes them with the primary purpose of paying the costs of supervision. This is usually done by a tax on premiums collected within the state. The rate charged varies from one to three per cent with different states. Sometimes it is charged on gross premiums; in other cases, gross premiums less death losses; and frequently, in the case of participating policies, on gross premiums less dividends. A few states have shown liberality by defining "premiums," in the meaning of the law, as gross premiums less dividends. On the other hand, where legislatures have not shown this liberality, the courts in several instances have done so. The United States Court of the District of Columbia and the Court of Common Pleas of Dauphin County, Pennsylvania, have held that dividends do not constitute income and are not therefore subject to taxation.

The tendency of state taxes on premiums in recent years has been upward in both the United States and Canada. Thus Alabama increased the tax in 1908 from one to two per cent; the rate in Virginia has been increased since 1911 from one to two and one quarter per cent; in Quebec a rate of one per cent was changed in

1906 to one and three-quarters per cent.[5] Similar instances could be cited in great number. It is generally conceded that a tax of one per cent on premiums would pay all costs of state supervision of life insurance companies. The states have therefore departed from the original purpose of the premium tax and are using it as a means of collecting revenues for general governmental purposes. This tendency is rightly viewed with much alarm by life insurance officials, since the main reason for the increasing levies seems to be the ready availability of life insurance funds for taxation and the ease with which the tax is collected.

License fees paid by insurance companies for the right to do business in a state, for the right of each agent to solicit, for the filing of reports, and the like, constitute a not unimportant source of state revenue in addition to premium or other taxes.

Very few states have passed income tax laws, hence the problem of direct taxation, by the states, of an individual's insurance premiums or the value of matured policies does not often arise. The Massachusetts income tax law makes no reference to life insurance funds. The Wisconsin law allows as deductions from the taxable income of individuals "all insurance . . . . received in payment of a death claim by an insurance company" but holds endowments or other insurance paid to the insured during his lifetime to be taxable on the excess received over the amount paid for insurance. The inheritance tax law of Wisconsin, however, states that insurance payable on the death of any person shall be considered a part of his estate for the purposes of the tax and shall be taxable to the persons entitled thereto. A direct application of the principle of taxing all surplus above current necessities of life and mimimum insurance needs is difficult with these laws. While the Wisconsin legislature has apparently considered the question of exemption in case of life insurance funds, this consideration has not been based on an adequate comprehension of the issues involved.

State taxes on life insurance funds were thus assessed, in the beginning, apparently for the sole purpose of paying the cost of supervising life insurance corporations. Had their scope never been extended beyond this point it is doubtful if the agitation against life insurance taxation would have occurred. But the huge assets of the

[5] These facts are taken from an article by James M. Craig in *Transactions Actuarial Society of America*, 16: 1–7.

companies have been an open book, and the objections raised by insurance officials have not had sufficient political effect to be heeded. Hence the tendency to increase these assessments has continued to the present time, and life insurance companies are paying annually to the state governments large sums of money for general governmental purposes.

Federal taxes. The present federal income tax law was passed in September, 1916. Its method of taxing individuals and corporations best shows the extent to which revenue authorities have grasped the significance of the problem of dependency and old age provision with reference to the imposition of a tax. That portion of the federal law which refers to life insurance companies provides that "there shall be levied . . . . *upon the total net income received* . . . . in the preceding calendar year . . . . by every . . . . insurance company . . . . a tax of two per centum upon such income." "Net income" is ascertained, in the case of a life insurance company, by deducting from the gross income from all sources (1) all ordinary and necessary expenses; (2) all losses (this item including funds necessary to satisfy reserve requirements, and sums paid during the year on policy and annuity contracts); (3) dividends paid or credited to individual policyholders; and (4) taxes "imposed by the authority of the United States, or its territories, or possessions, or any foreign country, or under the authority of any state, county, school district or municipality" except those assessed against local benefits. Here is a tax imposed by federal authority for general government purposes on the net income of life insurance corporations, a definite recognition of the fact that the assets of these companies represent funds in excess of the minimum requirements for life insurance and old age provision for their individual policyholders. So long as companies issue policies for large amounts, aggregating thousands of dollars, to single individuals they may expect that no defense against the imposition of such a tax will be sustained. Should they limit the size of their contracts as do fraternal companies they could sustain an excellent plea for exemption from the provisions of the corporation tax. So far as is known to the writer, the life insurance companies did not oppose serious objections to the imposition of this tax.

Section 407 of the 1916 Act imposes an excise tax on "every corporation, joint stock company or association . . . . organized

in the United States for profit and having a capital stock represented by shares, and *every insurance company* . . . . organized under the laws of the United States . . . . *equivalent to 50 cents for each $1,000 of the fair value of its capital stock*, and in estimating the value of capital stock the surplus and undivided profits shall be included." An exemption of $99,000 is allowed from the capital stock as above defined. This paragraph further states that "every corporation, joint-stock company or association, *or insurance company* . . . . *organized for profit* under the laws of any foreign country and engaged in business in the United States" shall likewise pay an excise tax. It is clear that a mutual life insurance company organized in a foreign country is exempt from the provisions of this tax, but it is not equally clear that a mutual company organized in the United States is so exempt; for the section quoted, referring to domestic companies reads "Every corporation . . . . organized for profit, ... *and every insurance company*." The tax on domestic companies, however, is upon "the fair average value of the capital stock," and not upon surplus and undivided profits. It is difficult to see, therefore, how mutual life insurance companies can be taxed under this section. The excise tax, in this case, is assessed on profits available to stockholders. Incidentally, this tax may accelerate the movement for the mutualization of all life insurance.

The federal tax on individuals applies to all incomes above $3,000, or in the case of married persons, $4,000. The statute ought to grant a further exemption of income used for the purchase of insurance or old age protection, but apparently Congress did not consider the matter. It seems strange that, with all the pressure brought to bear on Congress by life insurance interests prior to the passage of the 1913 law, this important provision was not included. Here, if anywhere, was the opportunity, by a proper exemption, to offer the greatest encouragement to individuals to make provision for insurance needs. But Congress missed its opportunity both in 1913 and in 1916. In contrast, one of the conspicuous features of the English income tax law grants exemption of income to the amount of £100 if spent on life insurance and annuities.

Special consideration is given to life insurance funds by the income tax law in the paragraph exempting from the tax "the proceeds of life insurance policies paid to individual beneficiaries upon

the death of the insured" and "the amount received by the insured, as a return of premium or premiums paid by him under life insurance, endowment, or annuity contracts, either during the term or at the maturity of the term . . . . or upon the surrender of the contract." The latter of the two quotations represents a change from the law of 1913 which exempted "payments made by, or credited to the insured, on life insurance, endowment, or annuity contracts, upon the return thereof to the insured at the maturity of the term mentioned in the contract, or upon surrender of the contract." The sections quoted apparently intend to exempt from taxation all life insurance *paid to beneficiaries* at the death of the insured; and all insurance endowments or annuities *paid to the insured*, in so far as the latter represent a "return of premium or premiums." Another section of the law states that "All persons, firms, ... and insurance companies . . . . having the control, ... or payment of interest, ... *annuities* . . . . or other fixed or determinable annual or periodical gains, profits and income of another person, exceeding $3,000 for any taxable year . . . . are . . . . required to deduct, and withhold . . . . such sum as will be sufficient to pay the normal tax imposed." The question now arises whether an annuity exceeding $3,000 to a single person, or an installment payment of like amount, is subject to income tax before payment. The 1916 law must be interpreted largely on the basis of the rulings made by the Treasury Department under the law of 1913, since the first returns under the new statute are not due until March 1, 1917. In reply to inquiries concerning the taxation of gold bonds, continuous installment contracts, and ordinary policies settled under options 2 and 3 of the New York contract the revenue authorities ruled[6] that "the proceeds of insurance policies paid pursuant to contract are held not to be taxable in the hands of the beneficiaries, hence in the payment of such proceeds, whether the same be in a lump sum or in installments, at the death of the insured, on a matured policy or as annuities, no withholding of the tax is required." A later ruling of the Treasury Department (T. D. No. 2152, Feb. 12, 1913) states that "The amount paid under a life insurance, endow-

[6] Quoted from an article by John S. Thompson on "Income Tax on Annuities" in *Transactions Actuarial Society of America*, 16: 95–108. The reader is referred especially to this paper for a full discussion of the rulings.

ment, or annuity contract is not income *when returned to the person making the contract*[7] either upon the maturity or the surrender of the contract; but the amount by which the sum received exceeds the sum paid and coming into the hands of the person making the contract and payment is income."

The writer, being in doubt as to the interpretation of these rulings, addressed an inquiry to the Commissioner of Internal Revenue and received the following reply on January 11, 1917:

> The Federal Income Tax Law of September 8, 1916 does not impose a tax on the proceeds of a life insurance policy paid, on the death of the insured, to an individual beneficiary, whether paid as a lump sum or in installments.
>
> In a case where, under the terms of an endowment, or other form of life insurance policy, the insured receives upon maturity of the contract the face value of the policy with or without accumulations, the difference between this amount, plus all other amounts of income received on the policy during its life, and the aggregate amount of premiums paid, constitutes taxable income which should be included in any personal return the individual may be required to render for the year during which the final proceeds of the policy are received.
>
> If under the terms of a matured insurance policy, the insured receives annual payments of income, they need not be returned for Federal income tax purposes until the aggregate amount of such payments received equals the amount of premiums paid. In short, the amount by which the proceeds received by the insured on a life insurance policy exceeds the actual cost of a policy to him constitutes taxable income in his hands.

According to these decisions, insurance, endowment or annuity contracts *paid to beneficiaries upon the death of the insured* are not taxed at all, no matter whether paid in a lump sum, in installments, or as a life annuity; but like contracts paid to the insured are taxed on the amounts received in excess of the purchase money. Thus, an annuity for $10,000 purchased at a cost of $100,000 by a person for himself is not taxed until after ten payments of $10,000 have been made. Thereafter, it is taxed as any other income of $10,000. An endowment for $100,000 face value enables the company to pay the insured ten annual installments of $11,300. No tax is assessed against these installments until the insured has received $100,000 in full; the remaining payments are taxed the same as other income.

It was for the inclusion of these paragraphs in the law, exempt-

[7] The italics were not in the original.

ing the proceeds of life insurance policies from the income tax, that the insurance companies fought so hard in 1913. Of the desirability of exempting such proceeds from the tax, when paid in a lump sum in full settlement of the contract there can be no question. As previously stated, this fund should be taxed only as an inheritance. But for the illogical distinctions between policies paid to the insured and policies paid to beneficiaries; or between income representing a repayment of purchase money and income beyond this amount, in the case of installments or annuities, there is not adequate justification. The distinction that requires emphasis is between small incomes and large; between the income that just satisfies the demands of a decent standard of living, and the income far in excess of this amount. Relief granted from the income tax should not be a means of escape from taxation by persons of great wealth; but under the present law, as interpreted, it is just that. It matters not how great the amount of the annuity, if paid to a beneficiary it is not taxed; and if paid to the insured it escapes taxation for a number of years. An annuity is an income for life; it involves, in the words of an English court,[8] "the conversion of capital into income and reasonably enough, *when the buyer places himself in that position* the Act taxes him; he is taken at his word, he has got an income secured in the way mentioned." Such might better be the interpretation of the American Act. The claim for the exemption of insurance funds from income taxation is based on the eminently just grounds that adequate provision for necessary insurance *needs* should be encouraged. Let the law not then be used as a means of evasion by those who "have ability to pay." In their eagerness to grant necessary and proper relief to policyholders, life insurance officials have been caught in a dangerous position by this provision of the law. Their only safety lies in a thorough analysis of necessary life insurance needs and in a demand that special consideration be given to persons who meet those needs by the expenditure of their personal incomes.

SUMMARY OF FEDERAL AND STATE TAXATION

The federal tax law thus has its weakness and its strength in the way it meets the requirements of a scientific tax on life insurance funds. The tax on the income of life insurance corporations is

[8] Secretary of State for India *v.* Scoble (1903) 4 Tax Cas. 622, per Mathew, L. J., quoted in Pratt and Redman's *Income Tax Law* (ed. 1916), p. 156.

based on the indisputable fact that their assets reflect, in the case of many policyholders, more than a liberal *minimum* provision for life insurance needs; the excise tax is levied only on the capital stock of corporations for profit, and does not affect purely mutual companies. From neither of these levies is there any logical escape. The income tax on individuals presents the weak side of the law in its most pronounced form. It offers no relief from the tax for income spent on insurance and annuities and thereby fails to give desirable encouragement for supplying these socially important needs; and in the relief which it grants to persons in receipt of the proceeds of insurance policies it violates the necessary distinction between large and small incomes, and opens the way for evasion of taxation by persons of wealth who invest large sums in insurance or annuity contracts.

State taxes are equally unscientific in their incidence on life insurance. The easy solution, to allow the states to collect taxes equal to the cost of supervision and to retain all general taxation for the federal government, neglects the fact that the states are already taxing the companies in amounts far greater than the cost of supervision, that they will not relinquish their present hold on the companies, and that they are performing general governmental functions in only lesser degree than the federal government. It would be desirable, were it possible, for the states to confine license, premium and asset taxation to the payment of supervision costs and to use income and inheritance taxes for general taxation purposes. This would give greater opportunity than exists under the present system to introduce scientific tax methods.

THE TAXATION OF LIFE INSURANCE IN ENGLAND

English practice in the taxation of incomes furnishes points of contrast and points of similarity to the situation in the United States. Life insurance companies in England are taxed upon their "profits or gains" and these may be assessed upon "trade profits" or upon interest on investments. The Crown has the right to elect under which method to assess, and usually selects the latter as most profitable because of the large reserves held. The assessment on trade profits is, of course, possible only with stock companies, since the members of mutual companies do not trade between themselves. Trade profits may include the dividends paid on participating poli-

cies, but where the tax is levied on the investment income of a mutual company no part of the surplus accruing from premiums is taxable (Last *v.* London Assur. Corp'n 1885, 10 App. Cas. 438; Equit. Life Assur. Soc. of U. S. *v.* Bishop 1900, 1 Q. B. 177; New York Life Ins. Co. *v.* Styles 1889, 14 App. Cas. 381). The English method of taxing the income of companies is thus similar to the American, with the exception that the latter does not tax dividends in any case.

The English law furnishes its great contrast to ours in the method of taxing individual incomes. In addition to complete relief for incomes under £130 and a sliding scale tax for incomes from £130 to £700, an allowance is made for life insurance premiums. It covers annual premiums paid by the insured for insurance or deferred annuities on his life or the life of his wife; and the annual sums paid by a person or deducted from his salary under any act of Parliament for a deferred annuity for his widow or for provision for children after his death. Three limits are set to the amount of income thus exempt from tax—premiums up to one-sixth of his income; premiums up to seven per cent of the sum insured; and premiums not totalling more than £100. The last two limitations form part of the Finance Act of 1915. With complete personal exemption for all incomes up to £130, the English Act thus allows additional relief to £100, if spent on necessary life insurance protection. The method of relating this relief to *needs* (covering protection to self, wife or dependent children) is noteworthy. Were the American Act to do the equivalent, on the basis of the $4,000 exemption for married men, it would enable them to spend nearly $3,100 more in insurance premiums before they were taxed.

The term "annuity" is used with many different meanings in the English Act and in court decisions. Thus annuities purchased are distinguished from annuities by will or settlement, or annuities in the nature of a pension. The latter two classes are taxed to their full amount as income. The word "annuity" in the former case is sometimes used in an ambiguous sense: it may represent the repayment of a debt by installments, or the conversion of capital into income. In a much quoted decision in which this distinction is made, this statement appears: "An annuity, in the ordinary sense of the word, means the purchase of an income. It generally involves the conversion of capital into income, and reasonably enough, *when the buyer places himself in that position* the act taxes him; he is

taken at his word, he has got an income secured in the way mentioned."[9] This decision unquestionably covers annuities purchased from life insurance companies, and in conformity with it, such annuities are taxed in England in the same way as other income.

In its taxation of personal incomes the English law thus stands in striking contrast to our own; for it allows the holders of large annuity contracts no opportunity to evade their just share of tax burdens, and it tends to encourage the purchase of insurance protection by those who need it.

[9] Secretary of State for India *v.* Scoble 1903, 4 Tax Cas. 622, quoted from Pratt & Redman's *Income Tax Law* (ed. 1916), p. 156.

FIVE YEARS OF PROGRESS IN DISABILITY PROTECTION

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The disability clause furnishes one of the most astonishing developments of recent life insurance history. Its phenomenal success is indicative of a service rendered to policyholders of such real value that it cannot lightly be disregarded. It is perfectly true that novelties enter the life insurance contract, and the disability clause has been one; but many of the most substantial provisions of that contract have at some time been novelties. That they have endured proves them to have been of real worth. If this be the character of the disability clause, there must be a definite need for the protection it offers and it will be perfected until the insurance it furnishes is adequate. As a policy "trimming," its coverage has been more or less haphazard; in its more recent developments, however, there is discernible a tendency to make a sound insurance measure of it.

The risk of disability is just as real and the consequences of its occurrence may be as disastrous as death or old age. No man fully conscious of the hazards of life can safely undertake responsibilities which it will require years of income earning to satisfy without making provision by life insurance for the cessation of that income at his death, just as no sane man would think of operating a large industrial plant without fire insurance. Expressed in terms of its consequences, therefore, the hazard he faces is cessation of income. Now, income may stop because of death or old age; and it may also stop because of permanent and total disability. Still other disasters might overtake one and cause a cessation of earning power. For instance, there is sickness or unemployment. But because the last two are temporary in character they do not have the same importance as a catastrophe from which there is no recovery.

Since, then, the regular life insurance contract furnishes protection against the cessation of income through death or old age, the proceeds of life insurance should be available only when these

hazards occur, granted there is the necessary connection between *needs* to be satisfied and the amount of insurance carried. Disability protection to be adequate, therefore, should not encroach upon the "death fund," but should fill the income gap between the time of disability and the time of death. That protection of this nature is not furnished in any way outside of the life insurance contract is well known. The personal accident insurance companies give total disability protection but, with few exceptions, it is given in one-year term contracts, renewable only at the option of the insurer. A greater objection to these contracts is the fact that to obtain the required protection against loss of income by total disability it is necessary to purchase so many "trimmings" that the contract becomes top-heavy. With permanent disability protection there goes protection against death and against all sorts of temporary ills, many of them important, to be sure. The death coverage is a duplicate of the life insurance protection and the temporary disabilities are not in a class with the important permanent ones. Hence it is not surprising that the disability clause, which first appeared as a frill in the life insurance contract, has begun gradually to lose its decorative character and to take on the appearance of a real insurance measure.

The developments of the last five years are little short of phenomenal. The writer made a previous study of the disability clause, based on contracts used in 1912,[1] which on the whole revealed tendencies of growth, but which in far too many cases revealed conditions uncomplimentary to life insurance. Many clauses were frankly adopted as talking points for agents; some were trimmings of such filmy character as to appear to offer much but give little; and a few, under the guise of benefits, actually took from the insured what was rightfully his at death.

In this short period of five years no less than twenty-six companies have revised their clauses, almost without exception for the better; and forty-seven entirely new clauses have entered the field. Of the latter, twelve are from companies organized since January 1, 1912, eight from those organized prior to 1870. That old, long established companies introduce the clause indicates that it has

[1] "The total Disability Provision in American Life Insurance Contracts," *Supplement to The Annals of The American Academy of Political and Social Science*, May, 1915.

value, otherwise they could meet competition without it. Some of the older companies have adopted it reluctantly, and only after great pressure from their agency force.

The character of the new clauses and of the changes made in the older clauses is indicative of the direction of development, and the tendency in both cases has been toward greater liberality to the insured, and greater conformity to standards of practice generally accepted as sound.

AGE LIMITS

In the discussions of the disability clause among actuaries there has been general agreement that available data for the measurement of the risk was trustworthy to age sixty, and the majority of the older clauses gave benefits only for disability occurring prior to that age. Among recent changes, two companies have reduced their age limit from sixty-five and seventy, respectively, to sixty; while another has raised the limit from fifty-five to sixty. In one case an age limit of eighty was removed and benefits allowed for disability at any time. Of the forty-seven new clauses, forty-four fix the age limit at sixty.

THE DEFINITION OF DISABILITY

The scope of the term "disability" is all important with reference to the coverage furnished by the clause. Disability may be defined with reference to one's occupation or with reference to the cause which produces it. In the previous study referred to it was stated that no clause defines disability with reference to the occupation of the insured; but in order to obtain benefits one must be so incapacitated as to be unable to perform the duties of *any* occupation. No exception to this rule yet exists. One is inclined, however, on considering the causes of disability, to conclude that most disability which prevents the performance of the duties of one occupation will equally prevent the performance of any work whatever; for the large majority of cases are caused by tuberculosis, insanity, paralysis, cancer and accident. In this connection, recently published experience on the first 390 cases approved by the New York Life Insurance Company is interesting:[2]

[2] Quoted from *The Spectator*, Nov. 9, 1916, p. 67.

Cause of Disability	Number of Cases
Tuberculosis	165
Insanity	102
Paralysis	28
Accident	21
Cancers and tumors	18
Other causes:	
Rheumatism, Heart trouble, Blindness, Goitre, Diabetes, etc.	56
Total	390

If it be true that disability with reference to one occupation will be disability with reference to *all* occupations in most cases, the risk is well covered by the present clauses. Furthermore, the added cost of covering the broader definition will be slight and it may be expected that clauses will be so issued as soon as the companies have had sufficient experience to justify the truth of the assumption.

The majority of clauses existing prior to 1912 covered disability caused by "bodily injury or disease" or "from any cause whatsoever." Fifteen cases of narrower scope were found at that time. Of these one has since joined the majority. Of the forty-seven new clauses but three have restricted their definitions, two of them making an exception of insanity. The data above show its importance. The third company covers total disability arising from a few specially enumerated cases of accident. While even three exceptions are to be regretted, they represent but 6 per cent of the new clauses as compared with 12 per cent of the clauses in 1912.

A restriction of different character in the scope of disability has recently appeared in five cases, in the refusal to give benefits for disability due to military or naval service in time of war. It may even seem surprising that it has not appeared oftener, in view of the present war.

BENEFITS

Among the most commendatory changes that have occurred in the last five years in disability clauses, the gradual liberalizing of the benefits granted is easily of first importance. There seems to have been a very definite growth in conception of the purpose of

the clause in the life insurance contract. Starting with the idea that disability would cause a cessation of earning power and thus possibly compel the lapse of insurance that is carried by yearly payments from income, attention was first directed to a benefit that would keep the insurance in force. The waiver of premiums, or their payment by the company during the period of total and permanent disability, was the result. But it was soon apparent that this worthy end was not sufficient, that it did not replace the lost earning power of the insured. So the next modification came, in the form of immediate maturity of his policy upon the occurrence of disability, instead of requiring him to wait till death or the end of an endowment term to receive its value. Many policies thus mature today and are paid to the insured in ten or twenty annual installments, or even better in some cases in monthly installments over the same term of years.

But even this benefit has not replaced the lost earning power of the insured. His *insurance* is carried for the purpose of satisfying his responsibilities to others in case of his premature death and, if properly based on such needs, is not intended to supply his own personal wants while living. It is the same with endowments intended for old age provision: if they are drawn upon before he reaches the age of retirement, he increases to that extent the possibility of old age dependency. So, the protection needed by the insured against permanent and total disability, whether it shall be given by the disability clause or not, is such as will maintain his insurance in force unimpaired, and at the same time will replace his lost income and enable him to supply his personal wants and his continuing responsibility to others. Many persons today feel that this is too much to expect from the disability clause. While admitting the need of such protection, they maintain that the risk is separate and distinct from the life insurance risk and should be covered in a separate contract.

The growing tendency of the last five years is reflected not so much in the fact that the third type of benefit is given in three clauses but that among the revised clauses as well as the new ones, benefits generally have a larger dollars and cents value than they had five years ago. An examination of the various changes shows this clearly.

Waiver of Premiums

The waiver of premiums continues as the benefit given in the majority of cases. Among the new clauses twenty-five grant it alone; thirteen allow choice between it and installment benefits; four of the old clauses have dropped their installment option and offer only the waiver benefit.

The main question arising here is whether the insured will continue to receive dividends in case he has a participating policy. Prior to 1912 nine clauses clearly stated that dividends would continue after disability. Two of the older clauses have since been changed to conform to this practice. Of eighteen new clauses issued by participating companies which give the waiver of premiums as a separate benefit, six have stated that dividends will continue to be paid. This is a remarkably large proportion as compared with 1912.

Though disability must occur prior to age sixty in order regularly to obtain full waiver or installment benefits, the insured is not always left entirely unprotected thereafter. The company may permit the cessation of premium payments by the insured, but hold them as a lien against the policy or reduce the amount of insurance in force. A few companies followed this practice prior to 1912; since then five old and ten new clauses have granted this option. The practice of using such premiums to reduce the amount of insurance in force is more liberal than holding them as a lien against the reserve value of the policy. It was followed by one company in 1912; seven do so at the present time.

Payment of the Policy in Installments

Where the policy is paid in installments after total disability, the amount of the benefit may be determined in one of two ways. The company may consider the policy fully matured for its face value, the same as though death had occurred. In this case the insured *has* available, on a $1,000 policy, $1,000 in present cash value; if the benefit is payable in ten or twenty installments, the amount of each installment will be more than $100 or $50, respectively, since the company will give credit for interest earned on funds still unpaid. On a 3½ per cent interest basis, for instance, ten installments of $116 each or twenty installments of $68 each may be paid. On the other hand, the company may consider that $1,000

in all shall be paid and, instead of waiting for death, installments may begin at once. Twenty installments of $50 each or ten of $100 may thus be paid. It is apparent, however, that this is equivalent to considering the policy matured, not for $1,000 present value, but for the present value of $1,000 payable in ten or twenty installments, an equivalent of $861 or $736 respectively, on a 3½ per cent interest basis. If a policy is paid in installments, therefore, the company may give a value equivalent to $736 immediate cash, or $861 or $1,000.

The tendency of the changes made since 1912 in installment benefits reflects very clearly the liberalizing of these benefits. Three companies have changed their installment benefits; two which earlier gave the face value in twenty installments have changed to ten; they have replaced a value of $736 with one of $861. One company which gave two-thirds of the sum insured in twenty installments followed by a life annuity has changed to ten. The present value of the installments certain was $491; the value of the annuity is undeterminable at present, but from the best evidence is small. The value of the new benefit is unquestionably greater than the old.

Seven clauses which originally granted only the waiver of premiums have now added installment benefits and nineteen of the new clauses contain them. Of these twenty-six companies, ten grant the twenty installment benefit, ten the ten installments, two grant monthly payments of ½ per cent and 1 per cent of the sum insured for two hundred and one hundred months, respectively. Four companies give a value equivalent to $1,000 cash at the time of disability. This latter benefit was first introduced by the Traveler's Insurance Company in October, 1913; the fact that it is now given by four other companies, namely, the Prudential, the Union Central, the Northern Assurance Company of Michigan and the Protective League is significant of the tendency toward more liberal benefits. The Prudential and Union Central clauses are especially commendable because of the latitude allowed in selection of the mode of payment. The Prudential benefit may be paid monthly, quarterly, semi-annually or annually. The Union Central allows the policy to be paid after disability in accordance with the terms of the regular settlement options.

Installment Benefits—Method of Handling Indebtedness

The methods of determining the amount of disability benefit in case indebtedness exists on the policy likewise, show a tendency toward greater liberality. Many of the earlier clauses made no reference to indebtedness, some made its repayment a condition precedent to the receipt of benefits or barred them entirely; some reduced the amount of the installment in the proportion that the indebtedness bore to three-fourths of the sum insured. The most liberal clauses either reduced installments in the proportion that indebtedness bore to the entire amount insured, or reduced the number of installments. In the one case, for instance, the installment would be one-tenth of the amount insured less indebtedness; in the other, one-tenth the amount insured. In the first case ten such installments would be paid; in the second they would continue until the payments plus the indebtedness equalled the face value of the policy and would necessarily be less then ten full payments.

In thirty companies that have introduced or changed the installment benefit recently, seven have made no provision for indebtedness; sixteen have followed one of the two especially liberal plans described above.

Payment of Separate Disability Annuity

The acme of disability protection to date has been reached by three clauses, those of the Penn Mutual Insurance Company of Philadelphia, the Germania Life Insurance Company of New York City, and the Equitable Life Insurance Company of Iowa. These companies have broken all prior traditions concerning the place of the clause in a life insurance contract by giving the insured a straight disability annuity and maintaining his insurance unimpaired. In two cases the annuity is payable monthly and is thus especially fitted to the needs of a disabled man whose income is his only source of support. All three clauses waive the payment of premiums upon the occurrence of disabilty prior to age sixty; the Penn Mutual and the Equitable begin the payment of a monthly annuity equal to one-one hundred and twentieth of the face value of the policy, and the Germania annuity is one-tenth of the face value, payable annually.

There are two slight differences in the provisions of these clauses. In the event of disability after age sixty the Penn Mutual

and the Germania allow the premiums to be waived and to reduce the amount of insurance in force; the Equitable clause gives no benefit after this age. In case the disability does not prove to be permanent the first two clauses reinstate the policy without deductions upon the resumption of premium payments; the Equitable clause reduces the face of the policy by the amount of disability payments made and reduces the future premiums proportionately.

The commendation which these three clauses deserve cannot be stated too highly. They furnish the first instance where a man may obtain complete protection against the risk of total and permanent disability, in the same sense that the life contract gives complete protection against death. The earlier study referred to in these pages was closed by expressing the hope that some life insurance company would put a disability clause on the market which was a real selling feature, and which would meet competition because of its intrinsic merit as an insurance measure. That hope has at last been realized.

WHOLE TIME AGENTS FOR LIFE INSURANCE

By Edmund Strudwick, Jr.,

The Atlantic Life Insurance Company.

In point of assets employed life insurance is the fourth largest business in the United States; and in amount of its contractural obligations it far exceeds any other business. In point of importance and beneficence to the country's population, it affects more individuals and a greater number of families than any other business. The spirit of altruism enters into it more largely than any other business, and yet it is the safest and its contracts are the soundest.

Life insurance is established upon fundamental principles expressed in mathematical formulae as intricate and exact as those used in scientific engineering. Although its product is standardized and competition as to price is almost eliminated, the demand for it must be created. For this purpose a field force of solicitors, men who go to other men to sell them insurance, is indispensable. The figures for 1916 are not available, but 185,750 life insurance salesmen were licensed in 1915. Is it not of vital importance that the biggest and best business in the country should be represented by men of the highest character? And is it not an impelling duty of those who direct that business to do all in their power to elevate the character and develop the efficiency of its representatives in the field? What type of men then should these solicitors be? And how should they conduct their work?

Characteristics of an Ideal Salesman

The character of a salesman is largely determined by the character of the business he represents. No argument is necessary to establish that life insurance is a science and that work in life insurance, whether in the office or field, is the practice of a profession. Evidently in the pursuit of a science and the practice of a profession a high class of man is necessary; and if in either office or field a higher type is needed, more in the one place than in the other, preference in the assignment should be given the field. The most apparent reason for this distinction is that the field man comes in contact with the public, personifies the company to them, and

consequently his acts in effect are the company's and his reputation the company's also.

The ideal life insurance agent has been sketched in theory so often that no more than a glance at his qualifications need be given here. In general, he should know the principles underlying life insurance: he should understand the construction of the mortality tables; the necessity for a reserve, and the difference between preliminary term, select and ultimate, and full terminal reserve; the relation of net premium and compound interest to this fund; the elemental parts of a gross premium; and the distinction between pure endowments, annuities, whole life insurance, term insurance, and endowment insurance. He should be familiar with the history of life insurance: the beginning of the business, and its development from a speculative phase to a legitimate business; the failure of assessment associations; the unsoundness of all insurance schemes not based on the maintenance of adequate reserves; the present enormity of the business; and the opportunities for its future development. He should have a fair knowledge of the law of insurance, particularly regarding contracts and agency, and should acquaint himself, as far as possible, with the insurance statutes and the rulings of the insurance department of his state. He should have accurate knowledge of his own company—its assets, surplus fund, amount of insurance in force, and disposition in dealings with policyholders—in short, have accurate knowledge of all its strong points and the ability to answer any adverse criticism which may be directed against it. It is also important that he should inform himself as far as possible about other companies with which he will come in competition. Most essential is an intimate familiarity with the various policy contracts of his company and with each clause and provision contained therein, and an unfailing ability to determine his prospect's needs with a view to fitting the contract to him, both as regards the prospect's own personal condition and the requirements of the beneficiary. Here again a knowledge of the contracts of competing companies is necessary.

The foregoing knowledge or information is what the ideal agent will use in selling insurance, but if he does not use it properly, the effectiveness of the result is seriously impaired. Hence the ideal agent should have other qualifications. He should have pleasant address, engaging manners, tact, consideration for the business and

time of others, and the faculty for creating a condition of mutual human interest between himself and his prospects. He should establish in his community a reputation for civic pride, public spirit, and neighborliness in order that he may command respect and attention. Above all, he must be a firm believer in the necessity for life insurance, in the application of it to a variety of needs, in the unending good it does and can do, and in his own sacred mission in persuading as many people as he can to become insured.

No one will claim that insurance would prosper if none other than such men as filled the foregoing requirements were licensed as agents, because there would be so few of them. But, on the other hand, no one will deny that, if men of this class could be gotten in sufficient numbers, life insurance would soon be the most venerated institution of man's making, and the most potent factor in hastening universal economic independence.

PART-TIME VS. FULL-TIME MEN

It should be borne in mind that this sketch is of the *ideal* agent; but it is by no means necessary that a solicitor should be so thoroughly trained along technical lines or so fully furnished with historical information to become a successful solicitor and render efficient service both to his company and the public. No argument seems necessary, however, to show that the continual elevation of the agent's standard is desirable; but argument has always been necessary to show that each individual agent, if he would contribute to the raising of the standard, should give his whole time and attention to the business. This brings up the question of the whole-time versus the part-time agent. A modern and eminently practical angle from which to compare these two classes of agents, say the champions of the full-time man, is that of service. When great mercantile concerns have reduced prices to show a minimum of profit, have improved quality to the limit of ingenuity, have done all to put their products ahead of their competitors and still need a further bid for popular approval, they develop their capacity to serve their customers with a variety of concessions and accommodations. Needless to say, their salesmen are full-time men. How much more important, it is argued, that a business dealing in such a vital commodity as life insurance should serve its customers in the most efficient manner. A misrepresentation, a delay in the

delivery of a policy, the inability to advise correctly, or absorption in some line of work other than life insurance on the part of the agent, may work much hardship on an applicant or policyholder and may prejudice an entire neighborhood against the institution of insurance.

On the other hand, there are those who agree in the responsibility placed upon the insurance agent, and concede the dependence of the public upon him, but, for that very reason, argue that no one should be denied a license to solicit. They contend that every agent who does anything at all does just that much towards the furtherance of life insurance education and the increase of the amount of insurance in force.

Such lines of reasoning, of course, devolve finally into personal opinions, and it seems that personal opinions constitute the bulk of authority on this subject. With this limitation of reference in mind, a circular letter was prepared and sent to a selected list of general agents for the purpose of collecting as many individual opinions as possible on what were deemed the most important phases of the part-time agent problem. Eighty-two answers were received, seventy-two of which were usable. These came from twenty-five states, the District of Columbia, and Canada, and were received from the representatives of twenty-four insurance companies.

The first question asked was: *Do you appoint part-time agents?* Seventy-one answered this question, fifty-two by "yes" and nineteen by "no," thus showing a rather strong minority of over 28 per cent who do not favor the appointment of part-time men.

Question number two was: *If so [if you appoint part-time agents], about what proportion of your force do they comprise?* Forty-two answered this question, and the proportion ran from 2 per cent as a minimum to as high as 90 per cent in one case. Not knowing the number of men in each agency, it is difficult to compile significant ratios. But, for the sake of illustration, if the agencies averaged twenty men each, the ratio of part-time to whole-time men in the forty-two agencies responding is eight to twenty.

The third question was: *And if so [same condition] about what proportion of business in your agency do they produce?* Forty-two answered, showing a variation of from 2 per cent to 70 per cent. Again, a significant deduction is difficult, but, supposing that each of the twenty agents in an agency produced $50,000 of business, the

ratio of the business produced by part-time men to that produced by full-time men is $190 to $1,000. Combining the answers to questions two and three, 40 per cent of the agency force produced 19 per cent of the business.

Question four was: *Is the renewal experience of the insurance written by them satisfactory? Above or below normal?* Out of fifty-two answers to this query, forty-two claimed that the business written by part-time men renewed normally or above normal; while nine contended that it renewed below normal.

The fifth question was: *Have a considerable number of your good agents developed from part-time men?* Fifty-seven answered, twenty-five in the affirmative and thirty-two in the negative.

In answer to the sixth question: *Do you consider the part-time agent a help or a hindrance in bringing about a pleasanter relationship between agent and policyholder?* Twenty-six considered him a help and twenty-four a hindrance. A noticeable number considered him a help in country districts and a hindrance in metropolitan districts. These replies are not included in the above fifty.

The last question was: *If the part-time man constitutes a problem in your territory, what solution do you recommend?* Nine replies were written in such a general way that they hardly lend themselves to collation. Forty-six replies, however, specifically recommended a definite thing: seven favor the appointment of part-time men as apprentices with a definite contractual understanding that they will agree at the end of a specified period to accept a full-time contract or have their part-time contract canceled; seven are for cooperation on the part of the companies to appoint only whole-time men; fourteen are for an individual determination on the part of the general agents absolutely to eliminate part-time men; and sixteen are for retaining them in rural districts and discontinuing them in urban districts. One very positive reply comes from Oklahoma, giving the opinion that the insurance commissioner should have and use power to refuse licenses to all but full-time men; and a Massachusetts agent would like to see the legislature pass a law prohibiting all but full-time men from selling life insurance and rather expects some such action by the next Assembly.

The answers given are more than significant. Twenty years ago the term "part-time agent" had little or no meaning; everybody accepted him as a matter of course. He began gaining notoriety

when the public determined to do away with rebating, misrepresentation, and twisting. It was found that the "spotter" and the "one case" man were the greatest offenders along these lines. This type has about disappeared, but the fact that nineteen out of seventy-one picked general agents refuse even to consider the appointment of part-time men must signify some fundamental objections to the less than full-time agent.

Probably their refusal to appoint such men is based upon an experience similar to that of a very prominent general agent who has calculated that the agents he has appointed during his career have cost him an amount which, divided by the number of producing agents finally developed, makes these producing agents represent an average investment of $3,000. Certainly, the part-time man if the general agent spends time and money upon him, becomes a permanent investment, and if he leaves the company he yields no dividends on the investment and takes with him the hope of the repayment of principal invested. Another prominent general agent, writing in the *Western Underwriter* under date of November 11, 1915, says in part:

> We do not license bank officers or clerks, as part-time agents, because we believe:
>
> First, that it is against modern methods in business.
>
> Second, that the practice is unbusinesslike.
>
> Third, that no banker can act as a life insurance agent and take a commission upon a life insurance transaction without in every such instance being unethical and in all too many cases, absolutely abusing a confidential relation. . . . .

These reasons deal with what is considered a high type of part-time men and is the more impressive on that account. Many addresses have been made at agency conventions, and many articles have been published in insurance journals expressing in most emphatic terms the undesirability of the part-time worker as an insurance agent. It is men with such ideas who have injected into the answers to these seven questions a tone of dissatisfaction with part-time men. Strong voices are raised in protest, however, against discrimination in favor of the full-time agent. A very judicial article in the *Western Underwriter* of October 21, 1915, works out as its theme: "Every man aiding in procuring an application participates in the earning and should be paid in proportion to the value of his service."

The drift of opinion among general agents was probably accurately expressed in a personal interview with a North Carolina general agent who said in substance, "So long as other agents are appointing part-time men in my territory, I cannot afford to take a stand myself. The only way to eliminate part-time men is for all the general agents in any given district to enter into an agreement not to appoint such men as agents."

Conventions and meetings of various life underwriters' associations have staged acrimonious debates regarding the part-time agent, which have resulted in many cases in resolutions being passed and recorded against the employment of the part-time man. It would be hard to escape the conclusion that the trend of feeling among general agents is distinctly against the man who does not devote his entire time and energies to insurance, the notable exception being the local representative in a sparsely settled country district.

THE ATTITUDE OF THE STATES

Circular letters were also addressed to the heads of the insurance departments of all the states. In this instance, also, the response was most gratifying. Forty replies were received, and in several cases copies of statutes, court decisions, and clippings accompanied the letters.

To the first question: *Do the statutes of your state prohibit the licensing of part-time agents or restrict their activities in any way?* thirty-nine answers were received, one in the affirmative and thirty-eight in the negative, the one exception being Missouri.

The second question was: *Do the statutes give the head of the department discretionary power in issuing licenses?* Twenty-one answered "yes," and eighteen "no." The discretion allowed consisted, in the majority of cases, in the privilege of refusing a license to an applicant who had violated the insurance laws, or, from some other cause, had acquired an unsavory reputation in insurance circles. No reference is made to any distinction between full- and part-time men.

To question three: *Do the statutes provide for the investigation by the insurance department of an applicant for an agent's license?* ten answers were received in the affirmative and twenty-nine in the negative. The investigations provided for ranged from a perfectly

routine set of interrogatories in connection with the application for license signed by the company only, to a more searching inquiry to be signed by the prospective agent and countersigned by the applicant company by way of endorsement.

To the fourth question: *If not, do they require a certification of character from the company the agent purposes representing?* thirty-four answers were received, six answering "yes" and twenty "no." But several of those answering "yes" were states in which the insurance department as well investigated the applicant. In other words, the departments investigate through the companies.

Question five, with one exception, was answered in the negative. It was: *Do the statutes in any other way refer to part-time agents?* The question would have elicited significant replies only if the statutory articles referring to part-time men had been given, which, in this case, was not done.

Only six departments out of thirty-two favored the unrestricted licensing of part-time agents, as was brought out by question six which reads: *Does your department favor the unrestricted licensing of part-time agents?* The reason given in one of these cases was that it seemed rather partial and even autocratic to force a man to devote his whole time to the pursuit of a particular profession or, in event of his desiring to devote only a part of his time thereto, to refuse him a license altogether.

By answering "yes" to question seven: *Does your department or legislature contemplate taking steps to regulate the part-time agent?* two departments signified an active interest in the part-time question. In one state an agency qualification law is contemplated, in another an agency qualification law is to be recommended to the legislature which is convening as this article goes to press.

From the answers given to these questions, one conclusion, at least, stands out prominently: The heads of the insurance departments do not consider the agency problem one to be settled by them through legislative statutes or departmental rulings. This fact has been forcibly brought out at a number of Insurance Commissioners' Conventions where, to every attempt to force the body to commit itself to some definite expression of opinion and course of action on the part-time agent question, the majority of the membership has always replied that the agency problem, whether whole- or part-time, was essentially the companies' problem, and that it should be set-

tled by them on an economic basis and in a spirit of coöperation, without legislative assistance.

This stand of the departments seems justified from a purely common-sense as well as from a legal point of view. One of the few cases at law ever decided upon the point is William Hansen *v.* North British and Mercantile Insurance Company in the New York Court of Appeals. Briefly stated, Hansen sold two policies for the company and requested his brokerage commission. The company refused him this because he had no brokerage license. The insurance department, in turn, had refused him a license because the statutes provided that a broker could only be licensed when he engaged "principally in the insurance business" or "in connection with a real estate agency or real estate brokerage business." This applicant for a license practiced law as his chief profession. In deciding for Hansen, Judge Gray said in part,

> If the legislative act overstepped the limits, within which the legislature may regulate and restrict the business pursuits of the citizen, then it was violative of the plaintiff's constitutional rights and was inoperative to deprive him of the right to his brokerage.
>
> The appelate division, in the first department, has held the statute to be unconstitutional legislation, and I think that we should affirm its determination.
>
> There is no good reason, and no public interest can, conceivably, be subserved in prohibiting persons from conducting the business of an insurance agent or broker, in connection with any other lawful business, or occupation in which they may be engaged.

If it is unconstitutional to prohibit the licensing of part-time agents, the insurance departments, however, have no such bar to recommending to every state an agent's qualification law which would recognize the social importance of the life insurance profession and be based upon an appreciation of the peculiar relationship of responsibility and trust between the solicitor and the policyholder. This law, moreover, would increase its usefulness by requiring careful investigation of an applicant for an agent's license and by giving the head of the department discretionary power in the issuance of licenses. Such machinery would go far towards guaranteeing that only life insurance salesmen of average and higher character, ability, and purpose would secure licenses. The part-time agent problem would then disappear to a large extent, without being directly legislated against, because, if part-time men could not meet the

requirements, they would not receive licenses. Moreover, if they could meet the requirements, there would be little inherently wrong with them, and again the problem would be minimized. The New York application for an Agent's Certificate of Authority has printed in red upon its face:

> The department requires that there shall accompany each application for an Agent's Certificate of Authority evidence that the company or its representative has investigated the qualification of the applicant to act as its agent. A written report of such investigation, giving the facts as to the character and experience of the applicant, countersigned by the officer who approves the application, must be attached hereto.

And the department uses its discretion in issuing the license as is shown by the following quotation outlining their regular practice:

> The regular practice of this department is to issue such licenses only to men who intend devoting their entire time to the business of soliciting life insurance. This is a rule of the department which is not varied from excepting in cases where applications coming from men who propose to devote only a portion of their time to this business are accompanied by the strongest recommendations as to competency and trustworthiness, and also by some definite assurances to the effect that the applicant intends ultimately to engage exclusively in the business of soliciting life insurance, and that his application as a part-time man is made in order to enable him to withdraw gradually from his present occupation.

Such an attitude on the part of a department must go far totowards eliminating part-time agents, because upon application for renewal of license, the truth of their previous statements of purpose to become full-time men can be verified.

THE ATTITUDE OF THE COMPANIES

The next point to be considered, and by no means the least important, is the attitude of the companies themselves towards the part-time agent. No attempt has been made in the preparation of this article to circularize them for this information. The reason for omitting to do so was that the majority most probably would have replied that the matter was one for settlement by their general agents and not by the home office. But can they escape all responsibility and avoid all embarrassment by such an attitude,—assuming that the problem is embarrassing and involves executive responsibility?

In an address delivered at the World's Salesmanship Congress

in Detroit, July, 1916, the President of the National Association of Life Underwriters estimated that 60,000 agents cancelled their contracts with life insurance companies in 1915. In a great many cases these were men who had received advances, been paid salaries, traveled to the home office at the company's expense, or involved the company in the expense of hunting them up and sending representatives to see them, and, finally, had probably run up rent bills and expense accounts. He states that in all cases the company at least had to pay for the license, a rate book, and supplies. "The president of one of our largest fire insurance companies," he said, "valued each fire agent at $250. These 60,000 failures, therefore, cost a figure that must be admitted as most conservative—$6,000,000." "It is a fact," he asserted in another part of his address, "that large numbers of these agents are part-time agents." Thus the companies are put to an actual financial loss by part-time agents which is far from made up in profits from the first premiums on whatever business they may have originated. But in the address the largest loss to life insurance through these 60,000 agents is outlined thus:

> Assuming that the failure of each one of these agents adversely advertised life insurance as a discouraging business, deterring others from taking it up because of their failure, to an average, of four others, kindred and friends, it would mean 300,000 persons looking discouragingly at life insurance as a business.
>
> Assuming that each one of these before giving up the business interviewed during the average of perhaps one year's time that these agents were nominally under contract, even fifty people, it would mean that 3,000,000 persons, less duplications, had life insurance presented to them probably in an ineffective, unintelligent and inexperienced, if not bored method.

The company, it would seem, therefore, from an executive standpoint, has very little reason for wanting part-time agents on its books.

THE VIEWS AND NEEDS OF THE PUBLIC

Finally, does not the whole problem come back to the insuring public? What do they need? And what do they demand? As they become more throughly educated in insurance they require more expert salesmanship; they make inquiries which necessitate a specialist's answer: they demand a quality and quantity of service which no part-time man can give. The day is passed when the average prospect is taken in blindly by catch phrases and smooth

talking. He knows today that he is entering into a legal contract with a responsible financial institution and he expects the representative of that institution to be in all respects worthy of the company he represents, and the contract he recommends. Life insurance is more and more fitting itself to the complicated requirements of present day involved economic life, and the public will not be satisfied by the inefficient service that must necessarily be rendered by a part-time man.

CONCLUSION

What definite conclusions can be derived from the investigation? First, that among general agents there is a decided trend towards the ultimate elimination of the part-time agent; second, that the heads of the insurance departments, while not attempting any agency adjustment through legislative channels, are, nevertheless, in a few cases using their discretion in the licensing of part-time men and, more frequently, requiring a more or less searching investigation of the applicant; third, that the companies themselves are experiencing annually, through the part-time men, a large direct loss and a larger indirect loss; and fourth, that the insuring public have arrived at a point where more expert and efficient service than part-time men can render, is necessary to enlist their interest and secure their patronage.

In the metropolitan districts, especially in the larger cities, all part-time men could be discontinued without seriously affecting the volume of production. The field in such districts lends itself naturally to intensive soliciting and can be much more thoroughly and efficiently covered by whole time men working without the interference of part-time men. The country districts, however, are not yet ready for the elimination of the part-time man. He fills a real need there. Where, on account of sparse and scattered population, a man devoting all of his time to soliciting would have to travel long distances and cover a large territory, thus being unable to establish a personal relationship with his policyholders and to keep them interested in their insurance, a man, devoting only a part of his time to insurance and supplementing with other business to fill out his income, could supply the insurance needs of his immediate community and keep in close personal touch with all his clients. As such communities, of course, become more densely populated,

their need for part-time men, at best a compromise with temporary conditions, disappears. Since by far the greatest bulk of insurance is written in the more densely populated communities and since these communities are increasing continually in number and extent, the supplying of them with full-time insurance agents to the exclusion of part-time agents is an immediate and constant problem.

The present investigation furnishes these suggestions for definite action toward the solution of the problem: a concerted action on the part of the insurance departments to have agency qualification laws passed which will require a searching investigation to be made of all applicants for licenses, and will grant to the heads of the departments discretionary powers in the issuance of licenses; a demand by the public upon the insurance companies and their agents for a quality of service to which they are justly entitled and which can be furnished only by scientifically trained experts devoting their whole time to the business; and finally a determination by mutual agreement among the several insurance companies and the general agents of the companies to coöperate vigorously in discontinuing the appointment of part-time men in every community where full-time men can more efficiently perform the work.

If, as it seems, the gradual elimination of the part-time man is a thing to be effected, the insurance departments and the insuring public should do their part in hastening this accomplishment. But if actual and immediate results are to be obtained, too great stress cannot be laid on this final recommendation. The companies and their general agents have it in their power to cancel every part-time contract at any time they may determine upon. They are prevented only by lack of coöperative action and by considerations of expediency. In the last analysis the ultimate solution of the problem must come through and by them.

AMERICAN FIRE WASTE AND ITS PREVENTION

By Franklin H. Wentworth,

Secretary-Treasurer, National Fire Protection Association.

The European peoples point to the fire waste of America as evidence that the American people are the most careless and irresponsible individuals in the civilized world. This is not a flattering tribute. It behooves us to inquire if the charge be true, and if so how we may mend our unpleasant reputation. Statistics show that in the United States and Canada the fire waste is roughly ten times as much per person as in Europe. This contrast is partly explained by the facts that there are more people in Europe upon whom to figure this percentage and that more buildings in America are constructed of wood. Outside of Constantinople with its unsanitary conditions, European cities are seldom visited by such sweeping fires as have devastated the American cities of Chicago, Boston, San Francisco, Atlanta, Baltimore, Chelsea, Salem, Paris, Tex., Nashville, Augusta and others. American building construction is inferior to that of Europe in other respects. A poorly built city with numerous wooden buildings awaits only the right kind of a fire on the right kind of a night for its complete destruction.

Of the personal hardships, individual sufferings and economic disasters which follow the burning of a city, too many American cities can testify. The economic significance of these fires is not confined, however, to the cities that burn. Every fire, whether it consumes a whole city or only the roof or other portion of an individual house, has to be paid for. A burned house or city does not replace itself. Food, clothing and shelter are produced only by human effort, and labor expended in *replacing waste* is withdrawn from producing more things for the satisfaction of human needs; hence every fire makes every man's struggle for a living harder by compelling him to spend for his neighbor's waste what he might otherwise spend for his own comfort.

Our annual waste of $3 per capita means that every man, woman and child pays $3 a year for fire waste. That means that

the man with the average family, his wife and three children—a family of five—pays $15 a year fire tax. The United States government in its reports adds to this fire waste the cost of maintaining fire departments, which is as much more. This means $30 a year to the average family. If on some blue Monday in every year a representative of the government were to come around and ask us each for a check for $30 to pay our share of the national carelessness, then we should realize what we pay. But we do not realize that we pay it, because this tax is indirect.

The big manufacturers and the big merchants know that this fire expense is a tax. They equip their premises with automatic sprinklers. They put in protective apparatus. They get the lowest insurance rate they can because it helps them to compete; but the man in the street, the ordinary man, does not know how this fire waste is paid. Take wool, for example. Wool in the warehouse is insured—that is a tax. It is insured in transportation, and there it pays a fire tax. It is insured in the texile factory where it is worked up into cloth. It is insured in the clothing store, insured in the tailor shop, in the department store, and all the way along this fire tax is added to the cost, and when we buy a coat, we pay it. Every stock of goods that is insured carries this tax, and it is passed along to the ultimate consumer. The masses do not know that they pay it. They do not realize that when they buy a hat, or a pair of shoes, or a suit of clothes, or anything which goes through the regular channels of industry—production, distribution and exchange—they pay this tax. Not realizing it, they are indifferent to fire. They think fire does not affect them.

The fire loss in the United States and Canada for the last ten years has averaged $230,000,000 a year. What might we not do with that? We might build roads, canals, improve our harbors, build battleships—if we have no less mediaeval use for our money. We could do a great many things with $230,000,000 a year. What country can stand a drain like that? Suppose we were to throw into the sea $230,000,000 in wheat or corn or cotton, or lose $230,000,000 out of our national treasury. Then we would realize that we are being impoverished by this waste. But we have lost the faculty of being moved by an ordinary fire. In Europe a $100,000 fire shocks the entire continent. All the papers in Continental Europe comment on it, wanting to know how it occurred,

who was responsible for it, whether the conditions obtaining in the city where it occurred can be found elsewhere, so that such a fire might be duplicated. But here in America, if we take up the morning paper and do not find reports of two or three $100,000 fires we think it has been a dull evening!

We are the most careless people with matches on the face of the earth. In Europe, if you want matches you have to go where they are kept. In America matches are everywhere; on our bureaus; in our desk drawers; on the mantel-pieces; library tables; in all our old waistcoat pockets in the closets. If we wake up in the middle of the night and reach out and cannot find a match we feel insulted! And yet every match is a potential conflagration. Fire from a single match may burn a whole city.

The fire waste touches the pocket of every man, woman and child in the nation; it strikes as surely but as quietly as indirect taxation; it merges with the cost of everything we eat and drink and wear. The profligate burning every year of $230,000,000 in the value of work of men's hands means the inevitable impoverishment of the people. This fearful loss, spread over the entire business world of America, is beginning to manifest its impoverishing blight. The people feel it without yet being awake to its cause. Their awakening is retarded by the prevalence of the foolish notion that the insurance companies pay this colossal tax. But how could they, and remain solvent? They are mere collectors and distributors of that portion of this tax which is represented by their policies. Half of it they never touch; it falls upon the householder direct. San Francisco and Salem do not pay for themselves. We all help pay for them. And next year San Francisco and Salem, risen from their ashes, may help to pay for other cities. There is but one way in which we can escape the periodical paying for one another, and that is for us all to begin rational building construction and then protect what we have builded against fire.

It is the ever-present conflagration hazard which makes any approach to scientific fire underwriting impossible. The conflagration hazard is not confined to any one city or state. It is present in every city and state in the Union. We have built largely of wood, and sooner or later we must pay the penalty unless we can find some way in which to protect our cities.

There is a way to solve this conflagration problem—not ab-

solutely, but at least relatively. We cannot be expected to tear down our cities and rebuild them of fire-resisting material; the cities must be protected as they stand. In the heart of nearly every city there are streets crossing at right angles, along which for a very considerable distance are buildings of brick, stone and concrete. This shows a more or less complete Maltese cross of buildings which are not wood and which operate to divide the wooden-built district into quarter sections, and which might hold a fire in any one of these sections if they were equipped to do so. These brick and stone buildings are ordinarily valueless as firestops, because their windows are of thin glass and their window frames of wood. At Baltimore and San Francisco the conflagration attacked such buildings easily, breaking out the panes, consuming the frames, and converting every story of these brick structures into horizontal flues full of combustible contents. Brick and stone buildings are logical and capable firestops if the fire can be kept out of them. The small city that will trace out its Maltese cross of such buildings and equip them with metal window frames and wired glass will immediately possess the equivalent of substantial fire walls crossing at right angles in its center, dividing it into four sections. By such a simple, inexpensive, but yet strategic procedure many a city may save itself from the destruction which now awaits only the right kind of a fire on the right kind of a night.

I have referred in this plan merely to the smaller cities, but it is obvious that this form of protection is equally imperative in the brick, stone and concrete districts of all large cities where great values are housed in close proximity. Fires in the large cities entail an enormous waste because of the great values assembled there. We must come eventually to the equipment of all commercial, factory and office buildings with metal window frames and wired glass. This will mean the abolition of the conflagration hazard in our cities. Fires will then be unit fires, extinguished easily by a competent fire department within the building in which they originate; for the protection of window openings not only prevents fire from entering, but prevents fire from issuing out of the burning building. We may expect an occasional exceedingly hot fire to break down the defenses of an adjoining building, but it is obvious that a conflagration could not get under way among buildings of fire-resistive construction with properly protected window openings.

Having thus fortified city buildings one against the other, extensive fires within individual structures can be prevented by the use of the now well-established automatic sprinkler system. The automatic sprinkler applies the water without the help of human agencies while the fire is still incipient. It will operate in a dense smoke as well as in a clear atmosphere. It will not throw excessive deluges of water in wrong places as the fire departments are continually forced to do. With our window openings protected and our buildings equipped with such extinguishers, the conflagration hazard in mercantile districts will be eliminated. There will then remain for consideration our immense residence districts constructed almost wholly of wood surrounding the mercantile centers, like fagots around a funeral pyre. We can lessen the loss here by the abolition of the use of wooden shingles.

The prohibition of the wooden shingle roof, which is now generally recognized as a conflagration breeder, is today almost universal within city fire limits, and from the more enlightened communities it is excluded altogether. Burning shingles can be carried great distances by the wind or draft of a conflagration, and when they alight in their turn upon other dry shingles, they make fearful havoc.

It will not be necessary to remove all shingle roofs immediately. An effective city ordinance might require all roofs constructed in the future to be of incombustible material, and that all roofs which shall hereafter require repair to the extent of one-third of their area shall be replaced with incombustible roofs. The modern shingle is thin, and the machinery which now makes it leaves a fuzzy surface which, after a period of drought, becomes like tinder. Without shingle roofs, flying brands would not be carried over the brick centers of the city by the wind.

Outside of the abolition of the shingle roof, we must look for the protection of our homes to the corrected habits of our people. We must look carefully after the heating apparatus of our homes, giving them the constant and necessary attention demanded by receptacles containing fire. The building of proper flues and chimneys is especially necessary in connection with residences. Then we must have a general revision throughout the country of our building codes. We must stop the building of a certain shoddy class of buildings and we must limit the height of all buildings. In

Boston, buildings are limited to 125 feet. There is no reason why cities that can expand, and which are not bound by physical barriers, should follow the example of New York and erect absurdly high buildings. They inflict an enormous expense upon the city for fire protection.

There are other matters, however, to which we must give proper thought. Among them is the best use of the fire-fighting agencies which have been established and which are maintained at a great cost by our people.

The mental habits of a people are a vital factor in affecting social progress. It is the mental habit of our people to assume that fire departments are maintained for the exclusive purpose of extinguishing fires. It is obvious, however, that fire departments have large possibilities for service in preventing fires; a service which is, I regret to say, yet largely potential. In every fire department uniformed firemen should be regularly detailed for inspection service. Three or four hours a week for each man, going into basements, attics, courts and alleys, keeping down accumulations of rubbish—which spring up over night—locating the storage of inflammable oils and explosives, would keep the city clean of its most persistent fire dangers. Every fireman should in turn cover every section in the course of six months. One would thus check up the inspections of the other, and local conditions would become a matter for educative conversation about headquarters.

There is, however, a most important result to be achieved by such an inspection system over and beyond keeping the city clean; and that is the education of the fire-fighters in the exact physical character of the city. To know exactly which passageways are open and which are closed; to know which are fire walls and which are not; to have a mental picture of the exposures, the windows, the roof openings, the cornices, and all the other physical details important in fire-fighting, would so heighten the team work of a department that, like expert swordsmen, they could make their thrust without loss of time straight at the vulnerable part. There are a few cities in the United States where such practice, partially in effect, has already demonstrated its singular efficiency. The citizens of every town and city should demand this sort of service from its fire department.

Then we must begin to place the responsibility upon the in-

dividual for fires. It is difficult to do that, I know, and yet it can be done. In France, if you have a fire and that fire damages your neighbor's property you have to pay your neighbor's loss. That is very educative! It would be a very good thing if we had such a law in America. We can fix responsibility, however, and we can change our attitude of mind toward the man who has fires. When we look upon the man who has a fire as one who has done an unneighborly thing, as one who is a public offender unless he can prove that he was in no way responsible for that fire, then we will have begun to make headway. We must have inquiry into the causes of all fires, not merely an inquiry into the fire which is suspected to be the work of some incendiary. Nearly every fire is the result of some carelessness; and the careless man must be held up to public criticism as a man who has picked the pockets of the rest of us; because that is what it is in its last analysis. When we get fire marshals in every state or province who shall inquire into the causes of fires, I believe we will begin to correct our personal habits in respect to the things that cause fires. In New York City and in Cleveland, Ohio, the man who ignores a fire prevention order must pay the city for the services of the fire department if fire occurs on his premises. This is also the law in the State of Pennsylvania for cities of the second class.

In conclusion I have set down certain specific suggestions to property owners which, in view of the above, may help a personal consideration of this problem, and an understanding of what citizens may do to solve it, both for their own good and the good of the cities in which they live.

Property owners can do good service both in their own interest and in the interest of their community in this matter by first caring for the fire hazard of their own property, and then helping in any general local movement to eliminate the fire hazards from their city.

In a study of one's own property he should give specific attention to the following items:

Exposure Hazard. If your premises are surrounded or exposed to property that is inflammable or otherwise hazardous, you are paying for this danger in your insurance rate. Study your location and your exposure hazard and the reasonable means of bettering your own property (such as fireproofing doors and windows and outside

walls, extending fire walls above roof, non-combustible roofs, etc.), so as to minimize this physical exposure hazard.

Construction. A large part of your insurance rate is always based on deficiencies in physical construction of your property. Study this (such as unprotected and horizontal openings, too large areas undivided by fire walls, concealed spaces, etc.) and ascertain how they may be reasonably remedied, and how such improvement will reduce your insurance rate.

Protection. The best located and constructed property in the world without adequate fire alarm and extinguishing facilities may suffer from fire either in building or contents, or both. Burning contents often ruin so-called fireproof buildings. Study the deficiencies of your property in this respect and better them (by installing metal waste and ash cans, fire buckets, chemical extinguishers, automatic sprinkler or standpipe systems, etc.), and you may find the investment highly profitable in the reduced hazard and rate.

Occupancy. Every business has inherent in it certain dangerous fire hazard characteristics. Study the nature of your business and properly care for and isolate material or processes which may unduly occasion or accelerate fires.

Equipment. Virtually all property must be heated, lighted and ventilated, and all this equipment, in addition to special apparatus required by almost every business, has fire hazard. Study the character of your equipment thoroughly before purchasing, and improve that which you now have.

Management. Keep your property clean. Half of all American fire waste comes from careless accumulation of dirt and rubbish, and disorder. Teach your people cleanliness and order, and organize them to detect and extinguish fire, and how to call the public fire department quickly when necessity requires.

Every owner can apply in his factory, apartment house, warehouse or home the foregoing correctives, which constitute the essentials of fire prevention. He can also join any other good movements in community action to carry out this program, and to study and get prepared and enforced reasonable legal regulations whereby such correctives may be demanded in the law, and finally can back up public officials in seeing that they are applied.

The American people are not dull in comprehension, nor are

they slow to act once the necessities of a situation are made clear to them. The awakening manifested by the annual observance of "Fire and Accident Prevention Day" in many of the cities of the United States, by the appointment of fire marshals and the amendment of fire marshal laws; and by the teaching of the fire hazards in many public schools, indicates that we as a people will not much longer tolerate our pitiful impoverishment by fire waste. It is true that so long as our wooden cities stand they must occasionally suffer disastrous fires, with, oftentimes, shocking loss of life; but with the growing disposition to hold our citizens personally responsible for their carelessness, many of our most prolific causes of fire will disappear.

Our civilization grows daily more complex. Every man's life is becoming more inextricably linked with the lives of others. An injury to one is increasingly an injury to all. Out of a proper realization of these facts is coming a larger sense of civic responsibility. As citizens of a common country and brothers of a great international family, we may some day evolve a civilization in which there shall be no waste and in which the thought of the common good shall be the profoundest impulse in the hearts of our people.

RATE-MAKING ORGANIZATIONS IN FIRE INSURANCE

By Robert Riegel, Ph.D.,

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The Antagonistic Principles of Competition and Coöperation

During the recent development of fire insurance in the United States the problem of the medium or agency through which rates should be promulgated has given rise to two radically different solutions. These solutions are irreconcilable mainly by reason of the opposing premises upon which they rest. One presupposes that competition is the most effective method of securing justice in rates as between communities, classes of risks and persons, while the other assumes that the greatest measure of equity will be attained through coöperation.

The trend of thought of the advocates of competition is based upon history and analogy. Having observed instances of large combinations exacting exorbitant profits through freedom from competition, their conclusion is that lack of competition is the cause of extortion and that restoration of rivalry is the logical remedy. What more natural than to apply such a general conclusion to the business of fire insurance with the resulting conviction that the public welfare in this field will be best protected by denying combined action with respect to rates of premium? In this predisposed state of mind every united effort of underwriters is viewed as inimical to public welfare, and every association as a "combination in restraint of trade." Thus an association of agents in Missouri, designed to secure concerted action in the quoting of fire insurance rates, was characterized by the court as "a plain, palpable, but bungling pool, trust, agreement, combination, confederation and understanding, organized to avoid said anti-trust statute." [1] The inevitable result of such convictions is the enactment of anti-monopoly, anti-trust and anti-compact legislation.

[1] State *v.* Firemens Fund Ins. Co., 150 Mo. 113 (1899).

The reasoning of those who extol the benefits of coöperation coincides with that of the advocates of competition as far as a portion of the argument is concerned, agreeing that combinations have at times proved detrimental to public welfare. But here the similarity in thought ceases. Those who favor coöperation maintain that combinations and monopolies are not killed but fostered by competition and that a greater evil, discrimination between consumers, is traceable to the unregulated endeavor to obtain business. Applying their thought to the field of fire insurance, combinations of underwriters were an economic necessity because militant competition had not merely made the business unprofitable but had threatened the very existence of many companies. Those in the occupation believed that if such conditions continued a survival of the strongest would inevitably result and all the business fall under the absolute control of a few large companies. The only remedy appeared to be associated action. On the other hand this competition was resulting in discrimination between individual policyholders, but with no benefit to policyholders as a class. In a struggle to obtain business each company felt justified in offering inducements where necessary to secure the risk and the richest and most powerful property owners were those who secured the greatest concessions. These were at the expense of the weak, of course, since in the end aggregate premiums must be sufficient to pay aggregate losses and expenses. In many companies, where the sacrifices made in some directions could not be counterbalanced in others, safety and continued existence were endangered. The small insured, therefore, not only derived no benefit from the cutting of rates but saw the value of his indemnity—which depends upon the strength of the insurer—steadily depreciating. Inasmuch as business was secured through agents, furthermore, competition caused commissions to rise to exorbitant figures at times, to the added burden of the insured.

Such are the facts and conclusions furnished by the advocates of competition and their adversaries and the history of fire insurance legislation affecting rates is largely a history of the conflict of these two ideas.

THE DEVELOPMENT OF COÖPERATION

Relatively early in our history dissatisfaction with unhindered competition and its attendant rate-cutting was apparent. Advances

toward united effort, however, were spasmodic and results merely temporary. In New York City, for example, a rate agreement was made in 1821, but by 1825 the number of new companies formed so increased competition as to cause its abandonment. In 1826 an association was formed for similar purposes but by 1843 had ceased existence. In 1845 rates were again raised to a profitable basis, and from 1849 to 1865 New York City witnessed the establishment of no less than seventy new companies. Similar experiences are recorded in the annals of the Hartford Board of Fire Underwriters and other long-established boards. In 1866 an effort of far greater scope brought about the formation of the National Board of Fire Underwriters, composed of seventy-five companies, with the common purpose to "establish and maintain, as far as practicable, a system of uniform rates of premium."

A rating bureau was organized by the National Board and the United States divided into six territorial departments for the purposes of rate-making. In 1868 thirty-seven leading companies entered into the "Chicago Compact," pledging themselves to remove any local agent upon the second conviction for violating National Board rates. But by 1870 it was officially though reluctantly acknowledged that rates were not being generally adhered to and they were suspended. Following the Chicago fire in 1871 and the Boston conflagration in 1872 premiums were again temporarily maintained, but by 1876 conditions had returned to the usual state of demoralization, and in 1877 the rate-making function of the Board was abandoned in favor of local and sectional boards of fire underwriters, which have continued important factors until the present time. Practically the entire country is now supervised by a group of associations and bureaus.[2]

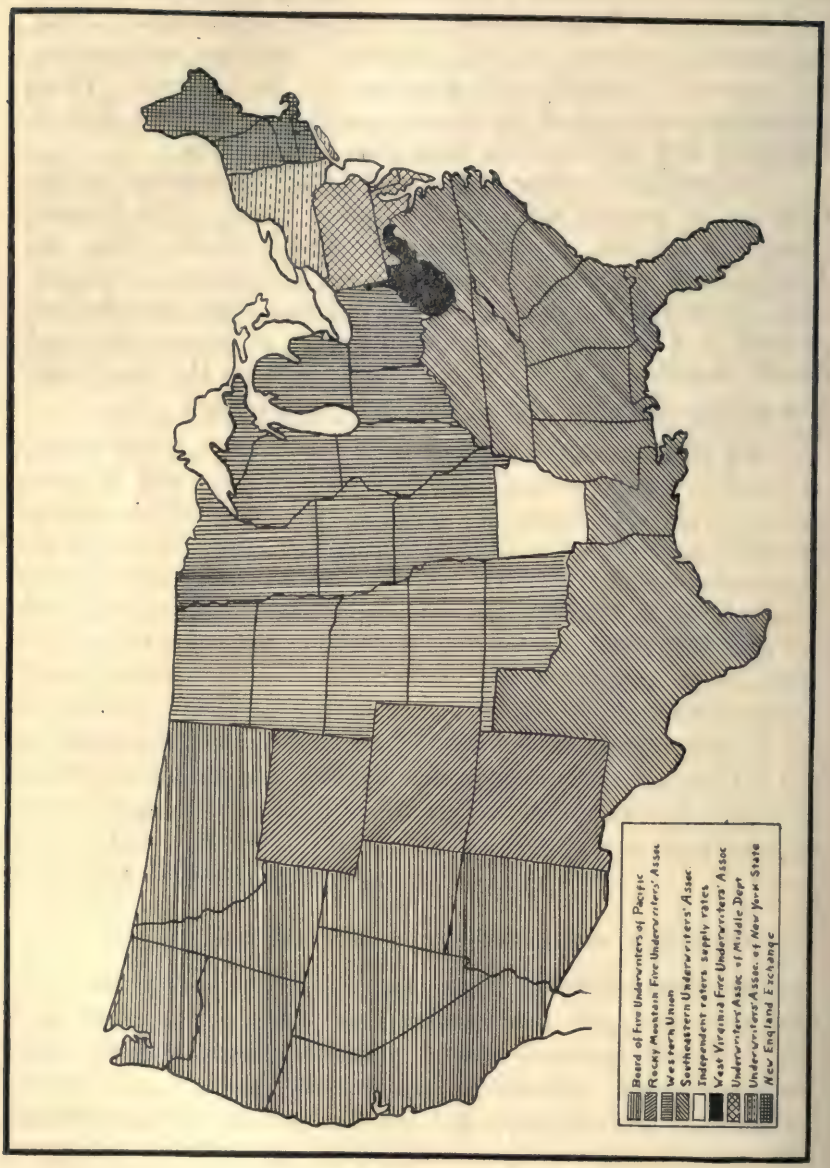
THE NATURE AND SERVICES OF UNDERWRITERS' ASSOCIATIONS

Classification of Associations. On a territorial basis, associations of fire underwriters may be classed as national, sectional and local. Since the relinquishment by the National Board of the rate-making function, the national associations have concerned themselves with educational and technical activities such as the promotion of harmony, correct practices, repression of arson and

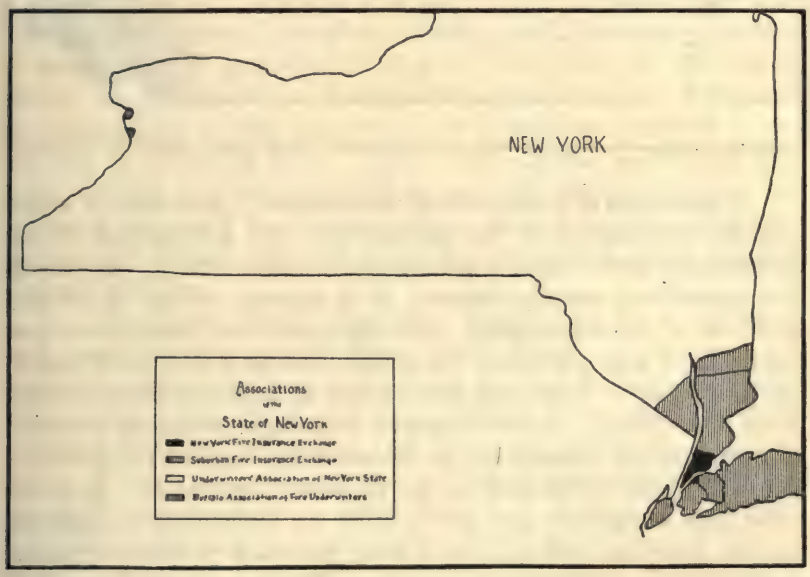
[2] See map on page 176.

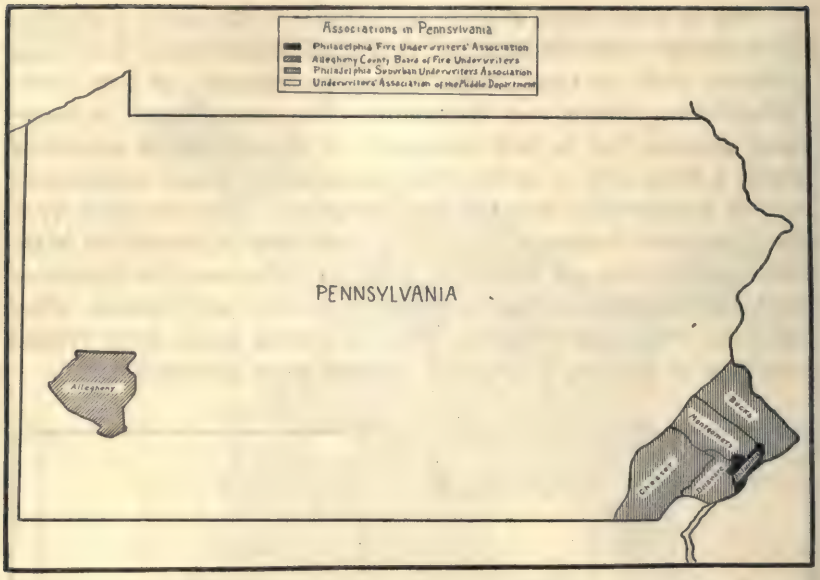
incendiarism, compilation of statistics, securing the adoption of uniform policies and clauses, promoting equitable adjustment of losses, encouraging improved and safe methods of building construction, fire protective measures and adequate fire departments. These associations, although of the highest importance, were not directly connected with fire insurance rates from 1877 to 1914.

The respective territories of the sectional organizations include from one to thirteen states of the United States. The Western Union, for example, approximately covers the Middle West; the Association of the Middle Department has jurisdiction in Pennsylvania, Delaware, Maryland and West Virginia. Such organizations perform, in a broader way, functions similar to those of the local boards, described later. The following map shows the jurisdiction of a number of the prominent sectional organizations:


Board of Fire Underwriters of Pacific
Rocky Mountain Fire Underwriters' Assn.
Western Union
Southeastern Underwriters' Assoc.
Independent raters supply rates
West Virginia Fire Underwriters' Assoc
Underwriters' Assoc. of Middle Dept
Underwriters' Assoc. of New York State
New England Exchange

But in many cities of great importance in the states controlled by sectional organizations we find local associations exercising authority over fire rates. This is true, for example, of New York, Philadelphia, Boston and Baltimore. The term "local" is somewhat general, but is best restricted to an association operating within a large city or in the adjacent suburbs. Local associations may be subclassified as urban and suburban. Thus the New York Fire Insurance Exchange confines its activities principally to Manhattan, the Bronx and Brooklyn, while the Suburban Fire Insurance Exchange supervises four adjacent counties and certain other specially designated territory. The following maps show typical examples of division of territory between such associations:





Organization of Underwriters' Associations. As is true of many business associations of the present day, the government of the exchanges is in the main a government by committees. An executive committee, usually elective, is in general control of all the activities of the organization, exercising universal supervision but delegating a large portion of the actual work to a number of standing committees. Four such committees at least are usually found in all associations. A committee on brokerage prescribes rules for admission to the association, investigates applications for membership and issues certificates to the successful applicants. In some cases this committee acts as a court to investigate complaints against members but an appeal may generally be taken from its decision to an arbitration committee. The latter hears these and other cases which lie within its jurisdiction and upon conviction imposes the appropriate penalty, usually consisting of a fine, enforced cancellation of policies involved, or of preventing the offending member from writing a particular risk or risks, either directly or by reinsurance, for one year. The latter may involve considerable loss of business. For grave offences the accused may be expelled. A committee on losses and adjustments usually exists for

the purpose of promoting good practice and equity in the settlement of fire losses. In some cases such committees have been instrumental in obtaining the adoption of uniform rules to govern complicated adjustments. One of the most important committees is the committee on rates, which deals directly with the larger problems of rate-making and delegates certain duties to the secretary of the exchange and an inspection and rating department. Through the committee on rates the association fixes specific and minimum rates for the writing of insurance, which are adhered to throughout its jurisdiction. A minimum rate applies to all risks of a same general description, such as dwellings. Specific rates are rates on individual risks specified by location and description, and usually arrived at by the use of "schedules."

The Economic Functions of Underwriters' Associations. From the brief description given of competitive conditions and the origin of associations it is evident that they were economic necessities. One of the founders of the National Board said in 1866: "Without an organization of this kind insurance companies would be in the position of Kilkenny cats. They would devour each other and leave nothing but the tips of their tails."[3] Formed to meet an economic need they have performed an economic service, although the benefits of their activities are often lost sight of in the criticism of their mistakes.

1. The Promotion of Economy. In the first place they have encouraged economy in the fixing of fire insurance premiums. A common organization now performs for all companies in an efficient manner the work which was once performed by each company individually in any manner it saw fit, accomplishing an enormous saving in labor and expense; and it must be remembered that the insured's premium pays for expenses as well as losses. Coincident therewith have come the benefits of specialization and division of labor. Instead of a company representative inspecting and rating at the same time, a trained inspector hands over the result of his labor to a department trained to apply the appropriate rating schedule to the conditions as set forth in his report. In the second place, through the establishment of uniform rates of commission to brokers and agents, the acquisition costs have been kept lower

[3] Mark Howard, at the convention called to organize the National Board of Fire Underwriters.

than would otherwise have been the case. Regulation of commissions, it must be admitted, has not yet reached the standard of regulation of rates, but it has eliminated the former enormous sporadic increases of commission rates during influxes of competition. Likewise it has done much to eradicate the evils of the rebate, which entails a preference of one policyholder over another. Thirdly, the association has provided coöperative action against legislation prejudicial to the companies and often to both the companies and the public, as for instance, valued policy and retaliatory laws. A protective alliance is the only defence against state legislation which one year permits companies to employ a common expert to make rates and the next year makes any combination of this nature a penitentiary offence.

2. Standardization. The associations have in many ways promoted the standardization of rates and rating systems. They have furnished a permanent means for the constant study of the process of arriving at an equitable rate and have been of vast assistance in the formation of rating schedules, which mark the great steps in the development of fire insurance rating from a guess to a science. Partially successful schedules once attained, they have furnished a medium or agency for the application of the same with the least cost. One of their greatest services has been the creation of uniformity in charges and the prevention of discrimination between localities, classes of risks, kinds of policies and persons. They have eliminated the rate-wars previously referred to, with their demoralization of business and deterioration in the value of the insured's policy. They have attempted the classification of loss statistics, although this activity never reached adequate importance until 1914, when the National Board of Fire Underwriters again interested itself in the subject of rates. Through the medium of certain associations standard tables have been adopted for quoting rates on insurance for a term of less than one year, known as short-rate tables. The fire insurance associations have also been instrumental in the adoption of a standard fire policy, the meaning of which has been largely settled by the courts, and the adoption of standard endorsements and clauses adequate to meet exceptional circumstances.

3. General Results. In addition to the above, the establishment of associations has had certain beneficial results difficult to

classify, such as the elimination of objectionable practices, expulsion from the business of undesirable members, mutual counsel, mutual assistance and prevention of and protection against fire.

DEVELOPMENT OF THE PRINCIPLE OF COMPETITION

The Common Law.[4] In the absence of anti-trust statutes, or where these laws have been held not to apply to combinations of insurance companies, the common law is available for the redress of real or fancied public grievances. For many years this was the only protection in some states against combinations prejudicial to general interests and we find several cases of proceedings against underwriters' associations under the common law. Its principle, in brief, is that any agreements in restraint of trade which are against public policy are void and unenforceable. They are sometimes called "illegal" but only in the above sense, it is generally admitted. Every case brought under the common law must, therefore, be judged in the light of the attendant circumstances. Does the association unduly restrain trade or is it contrary to public policy? Full discussions of the application of this principle to various other businesses can be found elsewhere[5] and we may consider here only cases directly involving fire insurance.

The general principle stated above was upheld by the court in a comparatively recent case in the following words: "The most that can be said as to the combination to fix, regulate and control the business of fire insurance in the city of Newport News is that it was an agreement in restraint of trade. But agreements merely in restraint of trade are not illegal in the sense that they are either indictable or actionable."[6] In another case a party to an agreement complained when its terms were applied to him but the court refused him aid inasmuch as he had "caused the injury of which he complained by his unlawful acts."[7]

Associations of fire underwriters have been attacked on the

[4] For a more detailed consideration of cases involving fire underwriters' associations see the author's *Fire Underwriters' Associations in the United States*, Chronicle Co. Ltd., N. Y., 1915, pp. 53–55.

[5] See *Report of Commissioner of Corporations*, 1915, on "Trust Laws and Unfair Competition."

[6] Harris *v.* Commonwealth, 73 S. E., p. 563.

[7] Beechley *v.* Mulville, 102 Iowa 602.

ground of public policy, and under such circumstances it was necessary to show that unreasonable restraint affecting the public interest was exercised or that insurance should be considered an article of necessity. The view that insurance is affected with a public interest is well supported, but there is little ground for considering it an indispensable necessity of life. Owing to the difficulty of showing unreasonable restraint or the importance to the public of fire insurance, actions under the common law have not been very successful, although in some cases the courts have held certain acts of associations, such as regulating the intercourse of members, prohibiting members from having more than two agents in congested districts of a city, requiring the cancellation of risks written at other than the board rates, etc., to be contrary to public policy, void and illegal.

Anti-Trust Statutes.[8] With the development of the antipathy to the so-called "trusts" came the enactment of laws forbidding in general terms combinations which were designed to regulate competition or enhance or maintain prices. These laws were applicable to "trade," "commerce," "business," "dealings in commodities," etc., and the question soon arose of whether or not insurance might be considered within the scope of such expressions.

In several cases it was held that insurance could not be considered "trade" or a "commodity" in the sense in which those words were used in the statutes and that only by a strained construction could it be included within the term "commerce." The effect of such decisions was avoided in Texas by the insertion in the statute of the word "business." To include insurance within their jurisdiction the laws referred to would have had to be very specific and accurate in wording, and being designed to have a broad application, this they seldom were.[9] There is still doubt in some states as to whether or not laws of this type are applicable to insurance or not. Thus the secretary of state is of the opinion that the anti-trust law of Mississippi may be so construed.[10]

[8] For citations of laws of this nature existing in at least thirty states on January 1, 1914, and court cases which have arisen under the same, see the author's *Fire Underwriters' Associations in the United States*, pp. 55–56.

[9] For citations of cases involving these points see *Fire Underwriters' Associations in the United States*, pp. 55, 56.

[10] Spectator Co., *Fire Insurance Laws, Taxes, Fees*, 1915, p. 126.

Anti-Compact Laws.[11] Since it was doubtful, to say the least, whether insurance might be considered as within the scope of a general anti-trust statute, laws specifically enumerating insurance as a subject for legislation were passed which, in brief, forbade any combination or agreement for the purpose of regulating or fixing the "price or premium to be paid for insuring property against loss or damage by fire." Since the power to regulate insurance does not rest with the federal government, combinations to fix rates on business written within the state are valid subjects for the exercise of state powers, and in one case the court held such regulation of business to be a proper exercise of the police power. The state may expel from its territory companies which unlawfully participate in pools and combinations. Briefly summarizing the decisions on the validity of state action, they are to the effect that anti-compact laws do not violate state or federal constitutional provisions embodying right of contract, "equal protection of the laws" and "due process of law."

Various devices have been invented to evade the effect of such legislation, but with little success. Where agents formed an association the rules of which required the stamping of policies for the purpose of supervising rates and where an independent rater sold to the companies rates which were maintained by having policies pass through a "stamping department" the courts held that these were illegal attempts to evade the spirit of the law.[12] No tendency to limit the application of these laws is apparent, as in 1912 combinations to maintain rates, defined by law as "trusts," were again held to be unlawful.[13]

Defects of Competition as a Basis for Rates. All of the laws which have been thus far considered have had as their basic principle the idea that equitable rates and public benefit could be secured by repressing rates through competition. All actions against associations under the common law, under anti-trust statutes, and under laws prohibiting agreements regarding rates to be charged, were designed to keep insurers in a contest where

[11] For citations of laws and cases see *Fire Underwriters' Associations in the United States*, pp. 57–59.

[12] State *v.* Aetna Ins. Co., 150 Mo. 113 (1899) and State *v.* Firemen's Fund Ins. Co., 152 Mo. 1 (1899).

[13] State *v.* American Surety Co., 135 N. W. 365 (1912).

survival would require rates from which the insured might temporarily benefit. They were constant incentives, not to uniformity in rates, but to diversity. The assumption of the beneficence of competition in fire insurance rates is far from correct when considered in the light of the history of the business.

1. In the competitive struggle perpetuated by such laws it is not possible for policyholders, generally and as a class, to benefit. There are numerous property owners offering risks of such magnitude that their acquisition measurably swells the business of the company, and just as a manufacturer puts forth more effort to obtain a large contract than a small one, so insurance companies, in the competitive state, offer greater inducements in order to obtain a large risk than they would to obtain a small one. As in the railroad business under competitive rates the small shipper was discriminated against in favor of the large,[14] so in the fire insurance business under competitive rates the small property owner is discriminated against in favor of the large. Not only does the small property owner reap no benefit from the competition, but the premiums he pays must be sufficient to make up any deficiencies in the premium collections from large property holders.

2. Unrestrained competition may also otherwise adversely affect the insured. The commodity which he purchases, indemnity for possible loss, is not delivered upon payment of the premium but some time subsequently. When one is likely to call upon a corporation to deliver something in the future it is not desirable to so weaken that corporation as to make fulfilment of its contract doubtful; it is rather to the buyer's best interest to promote its solvency. Yet the periods of unrestrained competition in the past have been fruitful sources of fire insurance failures. As stated by the New York Legislative Investigating Committee, "The universal effect of such periods of open competition wherever and whenever they have occurred has been a cutting of rates to a point that was below the actual cost of the indemnity. . . . . The effect on all companies is weakening." [15]

3. It has been argued that since competition is esteemed a

[14] Hadley, *Railroad Transportation*, 1885. Johnson and Van Metre, *Principles of Railroad Transportation*, p. 511.

[15] 1911, p. 41. See also report of Illinois Commission, 1911; Wisconsin Legislative Committee, 1913.

satisfactory method for obtaining equitable prices in such industries as the grocery business or the shoe business there is no reason for not so regarding it in fire insurance. This ignores a fundamental difference between insurance and the kinds of business mentioned. In the grocery or shoe business there has never been a general recognition of the principle that prices should be based on cost; on the contrary it is well recognized that they are frequently not so determined. In nearly every discussion of fire insurance premiums, on the other hand, we find references to the desirability of having the "premiums commensurate with losses," "rates based upon the amount of hazard," "equity between localities" and similar expressions inferring that rates should vary with losses and expenses.[16] Even in other lines of business where cost does more or less enter as a price factor the cost is definitely known in advance and prices may be fixed conformably. In insurance the cost can only be estimated in advance, on the basis of experience; "it does not stare the underwriter in the face in the same way that the buying price of sugar confronts the grocer." [17] Consequently, under the stress of competition, the underwriter is more likely to reduce premiums below costs than the grocer to reduce selling prices below costs.

4. In the struggle for business which ensues upon the inauguration of rate competition it is but natural for the insurance company to avail itself, not only of rate reductions but of another almost equally effective inducement in securing business—increased commissions to agents and brokers. Thus the small insured, who derives no benefit from competition, sees himself constrained to contribute more in order to meet the increased cost of doing business entailed by it. As stated in the New York report, "Competition, therefore, in fire insurance has acted badly both as regards rates and expenses, but in different ways. It has driven rates too low and expenses too high." [18]

5. Finally, unrestrained competition, under present-day conditions, leads ultimately to monopoly through the elimination of the weak or unfortunate and the survival of a few large and strong

[16] See *e. g.*, conclusion of Illinois Investigating Commission, 1911, that the fire insurance rate is a tax.

[17] *Report of the New York Legislative Investigating Committee*, 1911, p. 42.

[18] *Report of Joint Committee to Investigate Insurance*, Feb., 1911, p. 94.

companies. A theory that prices tend toward costs is only partially true in a business where a good portion of expenses continue whether risks are written or not. It is true that when premiums rise and profits increase additional capital is attracted to the business and profits cease to rise; but the opposite, that when prices fall below costs competition for business will cease and prices tend to rise does not necessarily follow. For while competition for business at low rates may involve loss, not to compete often involves greater loss. Thus whether a company writes a risk at a low rate or not certain expenses of the business, such as maintaining agencies and a force of special agents and operating a home office continue, and they may form 20 per cent of all expenses. It is better to receive $1 in premium, although loss and expenses aggregate $1.05, than to receive no premium and pay 20 cents fixed expenses. Continuance of all business at a loss, of course, must ultimately result in failure and such has been the fate of many fire insurance companies.

FURTHER DEVELOPMENT OF COÖPERATION

While the contest proceeded between coöperation on the one hand, represented by the associations, and competition on the other, represented by the anti-trust and anti-compact laws, some states departed from the line of procedure which had previously been followed; a departure which was extremely significant, not merely by reason of the type of law adopted but because of the relinquishment of the principle of competition. All the legislation thus far considered asserted in effect that there should be no combination, that each company should charge its own rates, that competition would determine their equity. Since under such conditions two different companies might quote different rates on the same risk, the states were saying in effect that there should be no measurement of hazard. Rates were to approximate costs, not by measurement but by competition. A new era of legislation had begun in some states, however.

Laws Requiring the Filing of Rates. For example laws were passed requiring corporations doing business in the state to file a schedule of rates with a state authority and requiring uniform premiums for all risks written under the same schedule. A common expert might be employed to inspect and rate risks and advise the

rates to be charged.[19] These are important simply as examples of *permission* to coöperatively determine rates.

Laws Providing for Revision of Rates. A second type of law required the filing of rates with the superintendent of insurance and invested him with power to order changed excessive, unreasonable or inadequate rates. Schedules and local tariffs were to be open to the inspection of the public and local agents were required to exhibit copies of the same. An appeal from the decision of the superintendent respecting rates might be taken to the district courts of the state.[20] These laws made it illegal to give special rates on any property not given to other property of equal hazard or to discriminate between persons. The title of one, for example, was: "An act relating to fire insurance and providing for the regulation and control of rates of premium thereon, and to prevent discrimination therein." The state is now on the road toward acknowledging the good features of coöperation; it realizes that a company should not discriminate between two equal risks and there only remains to be recognized the absurdity of two companies differing in rates on the same risk. The objectionable feature of the law to the companies was the extreme power seemingly vested in the insurance commissioner. This phase of the subject is discussed later.

State Rating Acts. Legislation of a more radical type speedily followed the laws providing for revision of rates, in the form of acts which create state commissions with power to actually fix rates in the first instance which shall be charged by the companies. The most noteworthy example of such a law is that of Texas.[21] In the words of the Insurance Commissioner of Texas:[22]

> If the state has the final say in the rate-making business, then I see no reason why the state should not make the rate in the first instance. We have state-made rates for fire insurance companies. We have a regular factory for making these fire insurance rates. The employes in that factory devote their entire time and attention to the study of the rate-making business. We have very experienced men employed in the department, about twenty-five in number, there

[19] See *e. g.*, Arkansas, Laws 1913, Act 159.

[20] Kansas, *e. g.*, Laws 1909, Chap. 152.

[21] Texas, Laws 1910.

[22] *National Convention of Insurance Commissioners*, September, 1915, p. 162.

being appropriated $100,000 annually for the payment of the expenses of making rates.

An act enabling similar action in Kentucky was the cause of considerable difficulty in 1912, which will be referred to later.

Criticism of State Rating Acts. The dissatisfaction of the companies with the Kansas act providing for a revision of rates by the insurance commissioner afforded an opportunity for the most important of recent decisions affecting fire insurance rates.[23] The law was attacked in the courts on the ground that fire insurance was a business of a private nature and that the law consequently was unconstitutional, amounting to an interference with the right of private contract, guaranteed by the Fourteenth Amendment. The majority decision held that "a business, by circumstances and its nature, may rise from private to be of public concern, and be subject, in consequence, to governmental regulation. . . . . Contracts of insurance, therefore, have greater public consequence than contracts between individuals to do or not to do a particular thing whose effect stops with the individuals. . . . . It is, therefore, within the principle we have announced." [24] The act in question was consequently held to be a valid exercise of the police power of the state. A strong dissenting opinion deplored the possibility so created of opening the way to state price-fixing with respect to many other kinds of articles and service.

But the acts which provided for rates actually made by the state occasioned the greatest consternation in the insurance fraternity, the results of which were most strongly evidenced in the case of Kentucky, where such a law was passed in 1912. After suggesting that this power be given to the Insurance Commissioner rather than to a state commission the companies threatened to withdraw from the state in a body. By March 9, 1914, twenty companies are reported to have withdrawn and by March 10, forty-seven companies had left the state. Meanwhile several events had concretely illustrated the prime necessity of fire insurance. A $150,000 fire occurred at Hodgensville in which twenty-three buildings were destroyed while covered by only $50,000 insurance. Most of the owners were unable to build without reim-

[23] German Alliance Ins. Co. *v.* Barnes, 189 Fed. 769 (1911), and German Alliance Ins. Co. *v.* Lewis, 34 Sup. Ct. 612.

[24] German Alliance Ins. Co. *v.* Lewis, pp. 618, 619, 620.

bursement for their losses or borrowing, and they were unable to obtain loans without insurance protection. Louisville banks, anxious about the security for their loans, began to inquire how much insurance was carried by their borrowers, how much matured each month, and what arrangements for its renewal had been made. Loans were outstanding on storage receipts representing alcoholic liquor in bond to the amount of approximately $162,000,000. The banks desired these loans liquidated if further insurance could not be obtained. Commercial credit was restricted by banks, wholesalers and manufacturers.[25] The pressure by business interests was so great that it was necessary to hold a conference to determine upon concessions which would enable the companies to resume business, and in June, 1914, an agreement to the following effect was reached: (1) Suit would be entered to test the constitutionality of the law and the Insurance Board would not enforce the provisions of the act until the question of constitutionality had been decided by the courts, (2) a committee should be appointed to make a study of rate laws with a view to formulating legislation on this subject, (3) all companies which had withdrawn from the state were to be permitted to resume business there without penalty, (4) rates would be reduced by the companies' Actuarial Bureau wherever improvements were made, and (5) a Business Men's Committee guaranteed the faithful execution of the agreement. The companies accordingly returned to Kentucky and the Circuit Court on June 12 held the act to be unconstitutional.

The following arguments have been advanced as showing the inadvisability of a state rating law. Some of them also apply to laws permitting the state to revise rates.

1. They interfere with freedom of contract in a business which is of a private and not a public nature.

2. It is unfair for the state to limit the amount which the companies may collect in premiums, without guaranteeing them against loss.

3. It is unfair to require the companies to contribute by taxation to a state rating board which may be of no benefit to them or

[25] See the insurance periodicals of this period, for instance, the *United States Review*, March 12, 26, April 23, 30, 1914. A very similar situation developed in South Carolina in 1915–1916, the outcome of which remains to be seen.

the public and may be more costly than their own private method of fixing rates.

4. Political influence may exert a power. In this connection the words of the insurance commissioner of a state where a rating law is in force are interesting. "The law should be framed so as to eliminate politics from the board. If they can keep politics out of the board, in my opinion the system will be a success." [26]

5. State management is usually inefficient. This argument (often merely a broad assertion) may be dismissed immediately, as being no more applicable to insurance than any other subject, even if true, which is open to question.

6. The inequalities and lack of relation present in state and local taxation afford a presumption that the fire tax will be improperly distributed under the state's supervision.

7. If the state assumed entire control of the business it could not accomplish its objects judging from the failure of state insurance in other countries to reduce rates or yield a profit. What can be accomplished then by merely fixing rates, except to make the companies bear the unjust burden of any losses which may result?

8. Average and distribution are bases of fire insurance and rates cannot be correctly or safely fixed without them. Rates should, therefore, not be founded on the experience of a single state. Nevertheless, the city of Austin, Texas, appealed to the State Insurance Board for a reduction of rates on the ground that the rates of Austin should be fixed upon the city's own experience and that citizens of Austin should not be taxed to pay for fire losses elsewhere.

A statement of a state fire insurance commission claims the following advantages for a state rating law:

1. The elimination of discriminations in favor of the large insurer and in favor of certain localities and classes of risks.

2. A reduction in insurance rates:

   (a) By improvements in cities causing reductions in their key rates.

   (b) By improvements in individual risks.

   (c) By the removal of unnecessary hazards and the reduction of hazards necessary to the risk.

   (d) By elimination of faults of management.

[26] John S. Patterson, Texas, *Nat. Conv. of Ins. Commissioners*, September, 1915, p. 163.

(e) By preventing insurance companies from advancing rates when temporary conditions and bad losses in certain localities make them desire to do so.

3. Stability of rates and schedules and accessibility of information regarding the process of ratemaking.

Several obvious comments may be made regarding these claims. The desirability of the elimination of discrimination cannot be disputed nor the ability of the state to accomplish this denied. Improvements in cities, in individual risks and in conditions surrounding risks, however, could and did take place before the state rating system was ever in effect. The rating schedules used by the companies provided allowances for such improvements. With reference to the success in preventing rate advances, it is hard to see any equity in preventing advances in rates if such advances are justified. Information regarding rate-making, however, is due the public, and it is unfortunate that fire insurance rating bureaus, local boards and associations did not sooner realize the necessity of a campaign of education.

The principal advantages of the state rating acts were that they fully admitted the necessity of having but one rate for each risk, thereby endeavoring to secure the same result as the advocates of coöperation, and second, the removal of certain evils which had existed, and with which coöperation had not sufficiently developed to cope. But it is also evident that the possibility exists in state rating laws for evils fully as serious as those which are removed, especially political corruption, ignoring the principle of average and inadequate rates. It is, therefore, legitimate to inquire whether equally great benefits might not be obtained from legislation of another character.

Regulative Statutes. At about the time state rating acts were being considered in Texas and Kentucky, a New York legislative committee transmitted a report recommending that the companies be allowed to continue coöperative rating under the regulation of the state, and in 1911 a law was passed with the following important provisions:[27]

1. Corporations, associations and bureaus for suggesting,

[27] New York, Laws 1909, as amended by Laws of 1911, Chap. 460, and Laws 1912, Chap. 175.

approving or making rates to be used by more than one underwriter are required to

(a) File with the insurance commissioner their articles of agreement, by-laws and a statement of the names and addresses of members.

(b) Submit to supervision and examination by the insurance commissioner at his discretion and at least triennially.

(c) File rates and schedules at the request of the commissioner.

(d) Keep records of proceedings and furnish the insured with information as to his rate and a copy of the schedule by which the same is computed.

(e) Provide means for hearing interested parties before the proper committees.

2. Associations and bureaus are prohibited from

(a) Discriminating in rates; the commissioner may hear cases and order discriminations removed.

(b) Requiring that all insurance be purchased from members of such organizations.

(c) Requiring that rates quoted depend upon the placing of the whole or a specified part of insurance at such rates.

A certain degree of progress in state action is apparent in legislation of this nature, which permits coöperation by insurers, with its attendant advantages, and on the other hand prohibits and adopts means to eliminate the abuses which have existed. In 1913 two other states, North Carolina[28] and West Virginia[29] passed laws identical with that of New York, although North Carolina has since added a provision for a hearing and examination of rates and a decision regarding their fairness, leaving correction to be accomplished by force of public opinion. But even more important has been the endorsement by the National Convention of Insurance Commissioners of the idea of regulated coöperation. One of its committees, after an investigation, came to the conclusions that,

1. Rates were at present made coöperatively.
2. This coöperation exists in spite of attempts to prohibit it.

[28] North Carolina, Laws 1913, Chap. 145.

[29] West Virginia, Acts 1913.

3. The requirements of safety and economy both make inapplicable to insurance the anti-monopoly, anti-trust and anti-compact laws looking toward unrestricted and open competition.

As a result of its investigation the committee submitted for adoption throughout the United States six model acts,[30] as follows:

1. An act similar to the New York law just described, providing for supervision and examination of rating bureaus.

2. An act prohibiting discrimination in rates and any requirement that the whole or any part of a risk be placed with certain companies.

3. An act requiring companies to maintain and coöperate with a public rating bureau, with equitable apportionment of expenses and equal voice in its actions.

4. An act requiring a written survey of each risk specifically rated by schedule.

Two other bills, favored by a number of the committee members, were not adopted by the committee as a whole, viz:

5. Prohibiting agreements between companies except such as are permitted by law, and

6. Authorizing the insurance commissioner to review rates and correct the same, subject to court review.

The latter two acts are in the nature of concessions to existing legislation, and as such a compromise with the principle of coöperation with regulation.

A report to the National Convention in April, 1915,[31] indicated that the first of these laws was in existence prior to 1915 in six states, and was enacted in three additional states by April, 1915. Laws prohibiting discrimination [32] were in force prior to 1915 in ten states and three additional acts of this nature were passed by April, 1915. Act No. 3 had been passed in two states by April, 1915. Massachusetts and North Carolina laws provide for a general review of all rates with only the power to make recommendations. Kansas, Kentucky and Minnesota have laws authorizing the insurance commissioner to review rates made by the companies and order the proper rate substituted. Missouri authorizes the insurance super-

[30] National Convention of Insurance Commissioners, December, 1914, Proceedings, pp. 19–24.

[31] N. C. of I. C., April, 1915, Proceedings, pp. 11–12.

[32] Not all following the model bill.

intendent to order rate reductions which will insure only a reasonable profit to the companies. Oklahoma delegates similar power to an insurance board. New Hampshire has long had a law enabling the insurance commissioner to review rates and fix a reasonable rate at which companies are required to write business under penalty of a fine. Although existing laws are difficult to classify because of the variety of their provisions,[33] the following table[34] shows approximately the legislative situation with respect to fire insurance rates and rating associations at the present time. Column A contains the names of states having an anti-compact law, forbidding companies or agents from combining to fix rates. Column B enumerates the states in which an act providing for the supervision and examination of rate-making bureaus and associations is in force. Column C shows the states in which there is an act prohibiting discrimination in fire insurance rates. Column D indicates the existence of acts requiring companies to be members of a rating bureau. Column E shows the various state acts permitting agreements between companies relative to rates, subject to the approval of the insurance commissioner. Column F shows the existence of acts providing for the making of rates by the state. Column G indicates the acts which authorize representatives of the state or state officials to revise or compel revision of rates made by the companies.

A[12]	*B*	*C*[13]	*D*	*E*	*F*	*G*
Ala.[10]	.....	.....	.....	.....	.....	.....
Ariz.	.....	Ariz.	.....	.....	.....	.....
Ark.	.....	Ark.[11]	.....	.....	.....	.....
Ga.	.....	Ga.	.....	.....	.....	.....
Idaho	Idaho	Idaho	Idaho	Idaho	Idaho	.....
Iowa	Iowa	Iowa	Iowa	.....	.....	Iowa
Kan.	.....	Kan.	.....	.....	.....	Kan.
.....	Ky.	Ky.	Ky.	Ky.	.....	Ky.
La.	.....	La.	.....	.....	.....	.....
.....	.....	Mass.[5]	.....	.....	.....	.....
Mich.[3]	Mich.	Mich.	Mich.	.....	.....	Mich.[4]
.....	Minn.	Minn.	Minn.	Minn.	.....	Minn.
Miss.	.....	.....	.....	.....	.....	.....

[33] For instance in Iowa the old anti-compact law was allowed to remain on the statute books and in addition acts similar to the model bills Nos. 1, 2, 3, 4, and 6 were passed. In certain states some authorities still hold the anti-trust statutes to apply to insurance companies.

[34] Compiled from replies to inquiries sent to the state insurance departments.

A[12]	*B*	*C*[12]	*D*	*E*	*F*	*G*
Mo.	Mo.	Mo.	.....	.....	.....	Mo.
.....	.....	Mont.	.....	.....	.....	.....
Neb.	.....	.....	.....	.....	.....	.....
N. Hamp.[8]	.....	.....	.....	.....	.....	N. Hamp.[9]
N. J.[7]	.....	N. J.	.....	.....	.....	N. J.[4]
.....	N. Y.	N. Y.	.....	.....	.....	N. Y.
.....	N. Car.	N. Car.	.....	.....	.....	.....
Okla.	Okla.	Okla.	.....	Okla.	.....	.....
Ore.[3]	.....	.....	.....	.....	.....	.....
.....	Penna.	Penna.	Penna.	Penna.	.....	.....
S. Car.	S. Car.	S. Car.	.....	.....	.....	S. Car.
S. Dak.[2]	.....	.....	.....	.....	.....	.....
Tenn.	.....	.....	.....	.....	.....	.....
Tex.	.....	Tex.	.....	.....	Tex.	.....
Wash.[3]	Wash.	Wash.	.....	.....	.....	Wash.[6]
.....	W. Va.	W. Va.	.....	.....	.....	.....
Wisc.[1]	.....	.....	.....	.....	.....	.....

[1] In Wisconsin the law forbids companies from fixing rates and requires that they be fixed by local boards, composed of local agents.

[2] In South Dakota rates are made by a general inspection company and associations and companies must file affidavits that they are not in an agreement to maintain rates.

[3] Inspection bureaus may, however, be formed.

[4] Only where rates are discriminatory.

[5] A board constituted to hear cases and make recommendations—enforcement depends upon public opinion.

[6] Only where the rate is so low as to endanger solvency.

[7] The courts have held combinations illegal.

[8] Applies only to companies not incorporated in the state.

[9] Upon complaint.

[10] Companies are compelled to pay 125 per cent of any loss if members of a tariff association.

[11] Law requires all rates made under the same schedule to be uniform.

[12] This compilation does not include general anti-trust acts, not specifically enumerating insurance, which exist in many states, as previously described. In Illinois a fire insurance combination is now being prosecuted by the insurance superintendent under such a law.

[13] This compilation does not include so-called anti-rebate laws, prohibiting agents from returning to purchasers of insurance any portion of their commission for writing the business.

The following states and territories have no legislation of the types considered: Alaska, California, Canal Zone, Colorado, Connecticut, Delaware, District of Columbia, Florida, Hawaii, Illinois,

Indiana, Maine, Maryland, Nevada, New Mexico, North Dakota, Ohio, Philippines, Porto Rico, Rhode Island, Utah, Vermont, Virginia, Wyoming.

RESULTS OF REGULATIVE LEGISLATION

The tendency during the past two years has been unmistakably toward a type of legislation which recognizes the difficulties of state rate-making and on the other hand shows appreciation of the right of the public to be protected from arbitrary action and unnecessary inequity. The advantages of a statute combining the principles of private coöperation and public regulation may be most concretely shown by a review of the results where such a law has actually been in existence.[35] One of the oldest laws of this nature is that of New York, passed in 1911 after a very thorough investigation of fire insurance conditions. This state thereby became the leader in this kind of fire insurance legislation as it was in certain phases of life insurance legislation some years ago. The results of its activity were as follows:

1. As shown by the map on page 177 four rate-making associations operate now and have for some time operated in New York state. One of the results of delegating the power of supervision to the superintendent of insurance was to bring about coöperation and harmony of action among these associations. While the first impulse in this direction came from the state, the associations readily responded and brought about many reforms on their own initiative. Frequent meetings of managers of the respective associations resulted in the adoption and promulgation of uniform rules, practices and forms. Thus the conditions were removed which occasioned the statement by an investigator in 1913 that "no one person is familiar with all these rules and until recently there has been no systematic attempt to collate them." [36]

2. Along with the former diversity of rules went non-uniformity in rates. A second beneficial result of the work of supervision has been to gradually eliminate inconsistency in premium charges. Variance between rates on risks of the same degree of hazard but

[35] A considerable portion of the data for the following statements was obtained from a letter to the author by Hon. J. L. Phillips, Superintendent of Insurance of New York.

[36] See *Fire Underwriters' Associations in the United States*, pp. 41, 42.

located in the jurisdiction of different rating associations, inequalities in rates charged by the same association on similar risks in different portions of its territory and unjust distinctions between different classes of risks were all considerably remedied. It is stated that it was not necessary to make frequent application of the power vested in the superintendent of insurance, its mere existence accomplishing the desired results in most cases.

3. As has been previously stated coöperation has been a status favorable to the development of a science of fire rating, one of the most important phases of which development was the supersedence of "judgment rating" by "schedule rating." The New York law has encouraged this. Dwelling and farm schedules have been devised with the resultant advantages of schedule rating, all of which cannot be enumerated here.[37] It is sufficient to say that thereby discrimination is more surely detected and avoided and property owners are made more fully aware of the deficiencies of their property. Thus the law seemingly offers no check to the preventive and protective functions of the associations.

4. To some degree the law has resulted in satisfying the well-nigh universal desire for lower rates. During the first few years the orders to remove unfair discriminations resulted in a considerable saving in premium, to an amount suggested by careful estimates as $1,000,000 per annum. In many cases the removal of discriminations resulted in readjustments which lowered some rates and advanced others, without extensively reducing the total premium income obtained on the class as a whole. Unascertainable saving in premiums resulted also from owners remedying property defects which were indicated.

CONCLUSION

In many directions the legislators have sought a method of removing unsatisfactory conditions among the agencies engaged in fire insurance rating, sometimes recognizing the fundamental principles governing the business of furnishing indemnity, but often ignoring or being ignorant of such principles. The statutes passed and considered have been prompted by a variety of motives and have had a variety of effects, but there is faintly discernible in early years, and distinctly apparent in later years, a tendency to

[37] See F. C. Moore's *Universal Mercantile Schedule*, p. 8.

recognize, in a measure, the benefits of coöperation. The companies as well as legislators and officials have made mistakes, but many in both groups seem now to see a method of procedure which affords a solution of the difficulty. One of the principal agencies of late years in bringing about a more rational treatment of the problem involved has been the National Convention of Insurance Commissioners, which at first encouraged the study of public questions and recently has made some progress toward concerted state action, the necessity for which is shown by the variety of laws in the preceding table. Perhaps through this association some of the inconsistencies of legislation may be removed.

Eliminating from consideration state insurance, which is not yet seriously considered as a general method of procedure but rather as a last resource not yet required by the exigencies of the case and the problem of acquiring uniformity of state action, a partial answer to which is furnished by the National Association of Insurance Commissioners, two phases of the question of what agency shall make fire insurance rates are apparent.

1. Shall competition or coöperation be admitted as the basis for ratemaking? This question appears to have been answered in favor of coöperation. This paper has attempted to outline the history of the conflict between these two ideas, to indicate the reasons for the ineffectiveness of legislation intended to enforce competition and to show that a second and different problem has now appeared.

2. Is the public interest better served by allowing the insurers to fix rates under regulatory statutes or by delegating price-fixing powers to state officials under state rating acts? This question has not become a distinctly recognized issue because it is possible in the United States for two radically different methods of regulation to exist for some time in different sections of the country without any definite decision in favor of either. It is probable, however, that in the near future the last-mentioned problem will become one of the most important in fire insurance.

PROBLEMS OF FIRE INSURANCE RATEMAKING

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Early Rating Methods

The first theory of rating risks to be covered by fire insurance was a classification of buildings (which were for some time the only property insured) into groups, each risk included in the group taking the group rate. In 1681 there were two such classes in England, brick or stone buildings and wooden buildings, and premiums were proportionate to rental values. For each one pound annual rental 2 s. 6 d. was charged for insuring a brick or stone building and double this amount for a wooden building. The classification system thus begun continued for many years and a relic still remains in the minimum or class rates which are now promulgated for groups of properties closely resembling each other, the results of specific rating for these not being commensurate with the expense involved. The inability to insure personal property and the calculation of premiums on a rental basis have long since disappeared, and rates, furthermore, are no longer applied to rental values. In 1706 a London office classified risks in three categories, common, hazardous and doubly hazardous and, turning attention now to the United States, a Massachusetts company in 1798 devised a sixfold classification of buildings. The classification was in accord with construction, roof and walls and a contents classification comprised hazardous and non-hazardous groups, the rates for contents depending in part upon the character of the containing building. A combination of companies in New York in 1826 agreed upon a building classification of eight groups and a division of contents into four groups, ranging from non-hazardous to specially hazardous.

These brief comments upon the history of rating methods are merely intended to illustrate the inevitable tendency of early underwriters to *classify* risks for the purpose of arriving at rates. Prior to 1870, for example, all risks in the state of Pennsylvania were rated on the classification basis, such classification being based on whether the building was of brick or frame construction and the presence

or absence of fire protection. The less the knowledge of fire hazards the greater the readiness to classify and group, or to put the matter in another way, the more thorough the analysis of hazard and the appreciation of differences the greater became the number of groups and the difficulty of assigning a risk to a particular group. The early application of the classification method is of particular interest because of the recently developed demand for a reversion to that principle of ratemaking.

THE DIMINISHING USEFULNESS OF CLASSIFICATION

Between 1835 and 1866 many companies introduced the practice of recording their experience with each of a large number of classes of risks with the object of deriving some information relative to the necessary rates upon such classes and the custom continued for many years after its usefulness for this purpose had disappeared. With an increased appreciation of the multitude of differences in construction, use and situation of buildings and the nature and qualities of substances the classifications necessarily multiplied, but the latter could not keep up with the changes taking place in the risks themselves. Modern conditions made the classification method of rating increasingly difficult. With increased knowledge and accessibility of material building construction became more varied and to place a building in a definite class became a more difficult problem. The introduction of machinery as a factor in production created a greater variety of occupancies and processes and an almost universal use of power generated in various ways. Heating and lighting methods were also radically modified. It is significant that what a prominent student of rating methods calls "the first real schedule" was devised in 1868 and that a great development in schedules had taken place by 1890; for the nineteenth century was prolific in inventions which radically altered industrial and trade conditions. Whole new industries were created by the telegraph and telephone, used commercially after 1844 and 1876, respectively; the practical application of coal gas production in 1798; the use of coal tar products after 1861 and other inventions too numerous to mention. Electricity and steam were more fully developed as sources of power. During this century the dynamo and electric light came into general use following 1870, the Howe printing press was brought out about 1845, the Bessemer process was invented in

1855, and there had appeared even earlier the power loom, the cotton gin, gas lighting, and knitting machines. From 1836 to 1867 the number of patents issued annually in the United States increased from 109 to 13,026. The alterations thus brought about created a multiplicity of hazards which made the old classification ideas almost useless for the purpose of rating.

A few instances may be cited of the difficulties encountered in attempting to classify risks. A group, to be of any value for ratemaking purposes, must consist of a sufficiently large number of risks of essentially the same hazard; but so many and unlike were the elements of fire hazard that it became impossible to obtain sufficient like risks to form a valid class. Then there was the difficulty of classifying a building containing diverse occupancies and congregated hazards. Thirdly, with the increasing impracticability of classification developed an ever-growing "miscellaneous" group of heterogeneous and unrelated risks. Furthermore, since the classifications were comparisons of premium income and losses on different classes of risks, and since both premium rates and losses were almost if not entirely independent variables, differences in results were attributable to either and conclusions reached were often erroneous.

Sufficient has been said to show that classification of this kind had outlived its usefulness as a method of measuring fire hazard. It became instead a weapon of competition, almost *prima facie* evidence of lack of coöperation. Each company jealously guarded the results shown by its records and considered them as a part of its stock in trade, indicating the classes of risks which had proved profitable in the past and serving as a guide for future policy. The following is an example of ten years' classified experience (1900–1909) of a prominent fire insurance company,[1] showing that with such a variety of risks included in one class and with losses attributable to many different causes, such a record is not available as a basis for rates:

RETAIL MERCANTILE STOCKS

	Income		*Outgo*
No. of policies	188,282	Expenses	(unknown)
Insurance written	$257,594,702	Number of losses	6,504
Premiums received	2,965,776	Amt. of losses	$2,203,180

[1] Reproduced from E. G. Richards, "Classification—Discrimination," an address before the Insurance Society of New York, 1913.

Average and Ratios

Average premium rate for 10 years	1.15%
Average premium rate for 1911	1.14%
Ratio of loss to amount insured	.85
Ratio of loss to premiums	74.2

Income includes premiums widely ranging from low to very high, upon more than a hundred varieties of stores, in buildings of every quality, surrounded by every class of tenant and exposure.

Losses include those caused by accident, incendiarism, tenants, and exposure. Lightning not infrequent. Conflagration hazard the most serious cause.

DEVELOPMENT OF SCHEDULES

For some time rates were adapted to conditions through the medium of inspectors. But since the judgments of individual inspectors varied and no evidence of the justice of a rate thus made ever existed, not to mention that the same inspector would often rate the same hazard differently at two different times, individual judgment was superseded by a system based on combined judgment, now designated the "schedule" system. This has been called "guesswork" but it is as far from that as from science. It would be more accurate to call the schedule process one of "estimation." The advantages of the schedule may be briefly summarized as follows:

1. It attempted an analysis of fire hazard into component parts. Thus even the early schedule of 1868 previously mentioned subdivided construction into walls, roof, floors and floor openings and distinguished heating methods, lighting methods, processes, fire extinguishing devices, etc., as elements of hazard.

2. A schedule furnishes a list of the conditions which the inspector can look for, diminishing the probability of overlooking defects or good features. Thus he is enabled to view the risk with a guide-book at hand, so to speak, indicating the places of interest.

3. A combination of judgments was obtained in determining the charges to be made for the particular features of hazard distinguished by the analysis. It might at least be expected that a smaller percentage of error would be present under such conditions than would appear in the single estimate of any individual inspector. This factor became of increasing importance with the progress of schedule making.

Since no compilation of the various early schedules has ever been made it is impossible to trace in detail the development of the

rating schedule. In New England schedules covering boot and shoe factories are said to have been first in use, followed by those covering woolen mills, fur hat factories, leather tanneries, etc. One writer attaches particular importance to the 1868 "woolen mills schedule" of Providence. From this date on the schedules in use multiplied rapidly. It is recorded that in St. Louis they were first adopted and printed in 1875. By 1890 a number of small mercantile schedules began to appear.

To avoid confusion it should also be stated that while the schedule has been of increasing importance as a factor in rating it has not entirely displaced the classification theory. For there are certain "minimum" rates still prescribed quite generally for non-hazardous classes of risks of a same general nature, such as dwellings, churches, etc. It is not very difficult to secure a number of such risks sufficient to produce a good average and the differences in hazard as between properties of such classes are so small as to render the expense of separate consideration impracticable. In one locality at least steps have been taken to rate even risks of this nature by schedule.

THE MODERN SCHEDULE

The modern era of schedule rating may be justifiably said to begin with the publication in 1893 of the Universal Mercantile Schedule, an attempt to devise a system of rating universally applicable and to render special schedules unnecessary. While seldom applied as published this schedule has served as a basis for the construction of other schedules throughout the East and has thereby exerted a profound influence on the methods of rating. While a description of the construction of the schedule and its application would occupy considerable space, its underlying principles and general theory can be sufficiently described for present purposes in a few paragraphs.

This schedule started from a basis rate for a "standard" building in a "standard" city. It was necessary for the underwriters engaged in the preparation of the schedule to accurately define therefore a "standard" city and also a "standard" building. Having done so their combined judgment and such experience records as were available and suitable dictated a rate on such a building under such conditions of 25 cents per $100 of insurance.

This figure was the result, then, of a combination of judgments or, stated in another way, a concensus of opinions. It was then necessary to decide what the rate should be on a standard building in a given city and for this purpose the given city is compared with the standard and additions to the basis rate made for deficiencies and deductions from the same for superiorities. The result is called the "key rate." In order to find the rate for a given building the construction, occupancy and exposure of the building in question must be considered. Additions made to the "key rate" for inferiorities of the building construction as compared with the standard together with allowances[2] for superiorities bring the calculations nearer to the final result, which is reached when additions are made for the use of the building and the nature of its surroundings and deductions for protective devices and any other circumstances reducing the hazard.[3] Additions to the rate for hazardous features are in general by flat amounts while allowances are usually made on the basis of percentages of the rate up to the point where the deduction is made.

Three features of this schedule present themselves as worthy of special note in connection with the present discussion. In the first place the Universal Schedule is a schedule preëminently dependent upon judgment. The basis rate is an approximation designed to bring as an ultimate result a fair profit to the companies and to cover unanalyzed features of hazard. The charges for defects and allowances for superiorities are the result of limited data and extensive estimates.[4] The authors of the schedule have stated that they considered the substitution of combined for individual judgment as one of its important contributions, as indeed it was. Secondly, the schedule was adaptable only with difficulty to changing conditions. Loss costs are always changing while many of the schedule charges were fixed, being flat amounts. Thus final rates would be now too

[2] Allowances are usually made on the basis of a percentage of the rate up to the point where the deduction is made.

[3] It should be understood that the schedule itself is not nearly as simple in form as might be supposed from this brief description. On the contrary, many features of construction may be considered. The Universal Mercantile schedule lists 1,000 distinct occupancy classes and a formula for calculating the exposure hazard is necessary.

[4] This is not intended to detract in any way from the value and importance of the Universal Schedule, which, as elsewhere explained, was one of the most notable contributions to fire insurance ratemaking.

low, now too high; in order to adapt the schedule to conditions it was necessary to change all or a part of these fixed charges. The schedule thereby lacked stability and was apt to lose consistency. Thirdly, there was an absence of relation between charges and credits for certain features of the risk which were seemingly related. Thus 15 cents (say) were added to the risk for an open stairway, regardless of the area of the building, its height, character of floors, or other features. Whatever relations might prevail originally were also likely to be lost through the necessary process of "patching" referred to above.

As might have been expected the second important universal schedule, the "Analytic," was an improvement in many respects over the Universal. In general, it presented a better formulated analysis of hazard and a concentration of judgment at one basic point instead of at many points. A schedule, by the theory of the new system, was a standard used to measure the relations of the hazards of different parts of a risk, the relations of similar or different risks in different places and the relations of similar or different risks at different times. In order to bring about a relationship between the schedule additions and deductions for features of the risk itself practically all such additions and deductions were made percentages of the basis rate and they vary as the basis rate varies. In order to bring about a place relationship a number of tables giving basis rates[5] are constructed, from which a rate giving satisfactory results can be selected after trials with a large number of risks in several towns. This schedule can be adapted to changing conditions, or to continue the terminology used, time relations can be maintained by changing the basis rate to meet the changing loss ratios when necessary. Since all parts of the schedule are connected and vary together this is relatively easy.

It can be seen that, regardless of any opinion respecting its practical application and results, the Analytic Schedule marked a distinct advance in theory. Features which cannot here be considered, for lack of space, showed the progress which had been made in the analysis of hazard and from what has been said it is evident that the Analytic system was not open to some of the criticisms which were directed against the Universal Schedule. There was a fundamental and important distinction between these two methods

[5] The basis rate varies with the height of building and class of town.

which cannot be overlooked. The Universal Schedule was deductive in nature, seeking to describe various portions and kinds of hazards and to set a value on each, from which rulings a rate could be arrived at. The Analytic Schedule was pragmatic, seeking to arrange a series of relations, the expression of which in absolute amounts would depend upon the results to be attained. A basis rate was to be selected such as would yield a fair profit to the insurer. If aggregate results show only a fair profit and all relations have been correctly established the allowances and deductions for the various elements of hazard must be equitable. This changes the basis of charges and credits from deductions to facts and statistics. Increased importance in determining rates is given to the changing fire losses and the aggregate amount which must be collected to yield a profit. It is most important to see how well this improvement in method satisfied the increasing public disapproval of what were considered inequitable discriminations in rating, for such an understanding is fundamental to an appreciation of recent developments.

PUBLIC ATTITUDE TOWARD RATES

Of late years the problem of fire insurance rating has continuously engaged the attention of legislators, almost to the exclusion of other important phases of the business. Investigations have been conducted in at least nine states[6] during the past six years and several distinct types of laws have been evolved for the regulation of the companies' activities. The space devoted to rating problems in technical journals has vastly increased. Criticisms of methods employed have been so severe as to induce several states to endow the commonwealth with the power to fix the price to be paid for insurance. It is evident that underlying such widespread and continuous dissatisfaction there must be some basic contentions, some identical thoughts common to all these forms of expression, some issues which deserve to be recognized and met. From a study of the press and the available literature, including reports of the various investigations conducted, there appear to be three distinct contentions advanced by legislators, insurance officials and the persons who purchase fire insurance.

(1) The first of these, that fire insurance companies have in

[6] New York, Wisconsin, Missouri, Ohio, New Jersey, Pennsylvania, North Carolina, Kentucky and Illinois.

general over a considerable period of time made exorbitant profits, is losing weight. Those who make this claim contrast the total profit derived from the risks written and from interest earned, with the capital stock of the companies. This would sometimes show a profit of 85 per cent on the capital stock. The capital stock is not, however, in the economic sense the real capital, which in fact comprises the capital, the surplus and a certain portion of the reserve. Comparing the profits with the real capital would show a ratio of perhaps 11 per cent. A New York investigation led to the conclusion that the six largest companies earned on the average about 10.1 per cent on this basis and had a dividend rate of 5.4 per cent from 1890 to 1909. Medium sized and new companies had a much less favorable experience. It would seem that with respect to this contention the critics have at least exaggerated matters.

(2) It is claimed that it is unfair to compel the citizens of a state which has yielded profitable results to underwriters for years to bear the burden in part of citizens of other states in which the experience of the companies had been unsatisfactory, not to say disastrous. This argument may be best illustrated by the following statements, which are virtually condensed abstracts from the report of an insurance superintendent.[7] "There is no reason for imposing the highest level of rates on Illinois, as is shown by the following table; and yet rates in Chicago, for example, range from 30 per cent to 50 per cent higher as regards buildings and from 11 per cent to 30 per cent higher as regards contents than in four or five other states. This is demonstrated by the following figures:[8]

		1810–1913	
States	*Loss ratios for the states*	*Building*	*Contents*
Chicago, Ill.	50.5%	.68	1.28
Cleveland, O.	52.1	.47	.91
St. Louis, Mo.	59.0	.59	1.10

"Dean Schedule rates vary according to the basis rate which is used. The following is a comparison of the basis rates for Illinois and other states of the Middle West.[8]

[7] Report to Gov. Edward F. Dunne on Investigation of Fire Insurance Conditions and Rates in Illinois, 1915.

[8] The accuracy of these figures and correctness of the statistical methods employed are immaterial; they are merely copied to illustrate the argument advanced.

	Dean Schedule Basis Rates			
	Brick		Frame	
	Building	*Contents*	*Building*	*Contents*
Illinois (North)	60	70	95	100
Illinois (South)	70	70	95	100
Ohio (prior to 1914)	50	70	90	95
Ohio (1914)	50	60	80	80
Wisconsin	50	70	90	90
Kansas	60	70	95	95
Ind., Mo., and Mich.	60	70	95	95

Thus it appears that higher rates are charged in Illinois than in Ohio and Missouri, whereas the latter states show a higher "loss ratio." This contention may to some degree be likened to the demand of individual employers for an allowance in compensation rates because they have had fewer or less costly accidents than other employers in the same business or industry.

(3) It is claimed that it is unfair to compel the owners of profit-yielding risks to bear the burden in part of unsatisfactory classes of risks. A concrete illustration of this criticism is the question asked by the Superintendent of Insurance in Missouri:[9] "Why is the basis rate on grain elevators $1.50 and on iron foundries $1.00? Why a basis rate of $3.45 on the mill room of a distillery and 35 cents on the transformer station of an electric light plant?" He goes on to state: "I assumed that when the companies fixed a basis rate of $2.00 on a given classification this could be justified by their experience but was soon informed that this was not the system in vogue." This contention merely embodies an extension of the principle of the application of experience, statistically presented, to the rating of classes of risks.

Summarizing the attitude of the critics, they challenge underwriters to justify their rates by statistics and contend that experience should be the basis of rate-making.

Recently Proposed Solutions

The Universal Mercantile Schedule and the adaptations thereof made practically no attempt to justify their results by statistics. Individual companies in the main regarded what figures they possessed as a part of their stock in trade, and the underwriters' associations were usually powerless to collect the data necessary to

[9] Report of Insurance Superintendent of Missouri, 1912.

measure the equity of the schedule's application to various classes of risks. The same is true of the Analytic Schedule. In fact its author stated that "statistics can never give us the slightest clue as to the adequacy of these charges or credits. The causes of most fires cannot be ascertained. . . . . An instant's thought will show that we are forever precluded from obtaining through classified statistics the contribution of such factors as area, height, wall thickness, floorway openings . . . . or any other of the features of hazard enumerated in a modern tariff."[10]

A rate expert who made the rates in Missouri said, "I have never seen any statistics covering fireproof buildings. I have no statistics to justify any of the basis schedules other than what I have quoted as to the average experiences of the State of Missouri, and they cover only the aggregate results. Many of the schedules may be too high, and others too low, but in the aggregate they produce fair and reasonable profits."[11] An insistent demand at the Annual Conventions of Insurance Commissioners that such conditions be remedied resulted in the establishment by the National Board of Fire Underwriters of an Actuarial Bureau to ascertain fire loss costs. Subsequently two new schedules were devised, one combining some of the features of the Universal and Analytic systems and the other designed to make use of the data collected by the Actuarial Bureau mentioned.

The L. & L.[12] *Schedule.* While varying greatly in the methods adopted to accomplish its purpose, this schedule is not fundamentally different from the Universal Schedule. The values assigned to the elements of hazard appear to be dependent upon combined judgment and such conclusions as may be drawn from the results of intelligent experimentation. Certain of the methods of arriving at particular items bear some resemblance to features of the Universal Schedule, such as beginning with a basis rate for a standard building in a given city, charging flat sums for defects and deducting by percentages. Two features in particular, however, are distinctly novel; the use of a factor designated the "burning degree," and the emphasis placed upon the influence of floor resistance.

The "burning degree" is a figure deduced from the type of

[10] A. F. Dean, *Fire Hazard: Is It Measurable?* p. 20.

[11] *Report of Superintendent of Insurance of Missouri*, 1912, testimony of Mr. H. M. Hess.

[12] Full title "The Larter and Lemmon Rating System," New York, 1916.

building construction and the nature of the occupancy and indicates the ignitibility and combustibility of the risk; this figure is frequently used as a multiplier in certain sections of the schedule. Reference to a table of occupancies provides three burning degrees for each class of occupancy—one when situated in a fire-proof building, one in a brick building and one in a frame building. The object of this device is to allow a table prepared with one set of charges to be intelligently used in connection with all classes of risks. The manner in which the burning degree is used will serve to illustrate this. Suppose in a risk, an area of 5,000 square feet, the minimum schedule charge being 1 cent per 1,000 square feet or a total of 5 cents. If this area is occupied by a stock of wholesale groceries the charge of 5 cents is multiplied by 2, this being the burning degree for such an cccupancy, and the final charge becomes 10 cents. If occupied as a garage for gasoline cars with a burning degree of 4 the final charge becomes 4 times 5 cents; celluloid stock, 8 times 5 cents; etc. The burning degree is applied to the charge for occupancy in the same manner. A table of occupancies provides initial charges for various kinds of occupancies in cities of different classes, and these initial charges are multiplied by the burning degree of the risk to arrive at the final charge for occupancy. The same is true of the initial charges for ignition hazards, obtained from a table of hazards, and also charges for unprotected interior supports. Thus the initial charge of 2 cents for a coal stove would be multiplied by the burning degree of a furniture store, if situated therein, the final charge being 3 times 2 cents. In brief, the object sought by the use of the burning degree is the regulation of charges for area, occupancy, hazards and supports in accordance with the environment of these factors, that is the ignitibility and combustibility of the risk. For convenient notice the features of hazard to which the schedule applies the burning degree are indicated on the following chart by enclosure in dash lines.

Considerable credit is given for efficient floor separation because of its value in resisting the spread of fire from story to story. While the burning degree is used as multiplier the figure representing "floor resistance value" is used as a divisor. It affects the charges for area, ignition hazards and occupancy. Thus suppose a building of five stories with a total floor space of 30,000 square feet, and floor and opening protection which is given a value of 175 per cent.

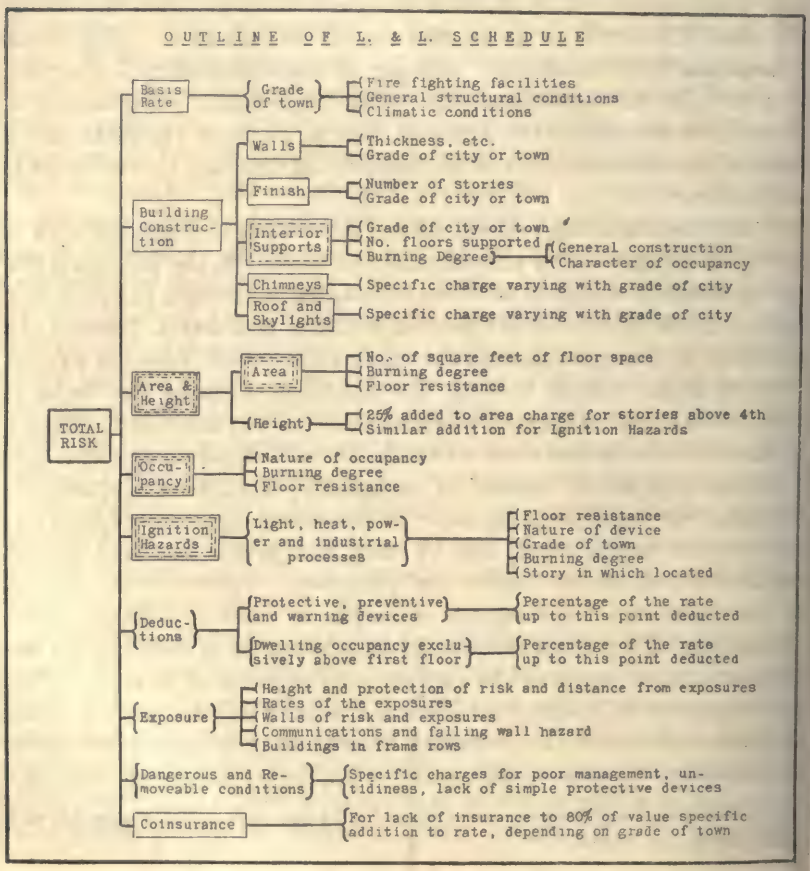
The total area charge[13] for 30,000 feet of floor space after allowance for burning degree assume to be 42 cents. This is divided by 1.75 reducing it to 24 cents. Ignition hazard charges and occupancy charges are similarly treated. For convenience these three charges are added before dividing by the floor resistance value. For convenient notice the features of hazard to which the floor resistance reduction applies are designated in the following chart by enclosing them in dot-and-dash lines.

It should also be noted that in this schedule the grade of the city or town in which the risk is located is considered not only in the basis rate, but in several other connections; it is a factor in determining the initial charges for building construction, area, occupancy and coinsurance. The effect of the grade of town upon the charge for area will serve as an illustration of its influence. The initial charge per 1,000 square feet in a city of the first class is .7 of a cent; in a town of the tenth class the charge is 2.3 cents. The factors of hazard influenced by the grade of city or town in which the risk is located are indicated on the accompanying diagram by enclosure in solid lines.

It is desirable, in order to afford something of a general view of the system followed by this schedule to introduce the following diagram, bearing in mind, however, that such a diagram can only furnish a crude sketch of its general outlines and not a detailed description of the methods used for valuing the sub-divisions of hazard. Viewed from top to bottom the diagram presents the order in which the items of hazard are considered in the schedule. Thus it proceeds from the basis rate to the features of building construction, the area and height, hazard of occupancy, hazards of ignition, deductions for good features such as protective devices, exposure of the risk to environment, lack of care and precaution and finally, failure to sufficiently insure the property. Viewed from the left to the right side the diagram attempts to present a rough sketch of analysis of the main features of hazard and brief notes of the factors considered to affect the various sub-divisions of hazard. Thus the basis rate is determined by the character of the town in which the risk is situated; the building construction is considered under the heading of walls, finish, interior supports, chimneys, roof and

[13] Not including, however, an addition of 25 per cent to the charge for each floor above the fourth.

skylights. The charges in connection with the item of walls are determined by the grade of the town in which the risk is found and the character of the wall construction as compared with the standards established by the Building Code of the National Board of Fire Underwriters. Other main elements of hazard are similarly analyzed. In order to bring to attention the significance of the three exceptional ideas of this schedule, the features of hazard affected by the grade of city are enclosed in solid lines, the features of hazard affected by the burning degree are enclosed in dash lines, and the features affected by floor resistance in dot-and-dash lines. Thus a general impression can be formed of the extent to which the application of these three ideas affects the rate on a risk.



Only considerable experience in its actual application to a number of risks would make it possible to judge of the ultimate results of such a schedule. While it is being used experimentally in certain territory no conclusion has yet been arrived at by underwriters as far as is known, regarding its ultimate value. Viewing it in a broad way, however, one fact seems important. Will it serve to any extent to remove the dissatisfaction hitherto existing with fire insurance rating methods? It will be remembered that earlier in this paper the two principal criticisms of methods extant were founded upon one conception—that a difference in rates as between localities or between classes of risks should be statistically justifiable. In other words, it is demanded that the foundation of judgment of the equity of rates shall be experience reflected in statistics. The public appears to refuse to be satisfied by the experience, judgment, or whatever it may be termed, of underwriters, however experienced or expert they may be or however logical their reasoning. Nothing less than figures will satisfy it. Then however much of an improvement over previous theories any schedule shows, unless it can justify itself by recourse to classified experience[14] it does not approach the standard for which critics are contending. This article is not an attempt to prove the feasibility of experience rating, for which proof probably an actual test is indispensable, but rather is intended to raise the question of whether such a test, from the standpoint of the insurers, is not highly desirable.

The E. G. R. Schedule.[15] In distinct contrast with all the schedules previously mentioned the E. G. R. schedule is an attempt to devise a method of ascertaining the total cost of insuring risks of varying character by an analysis of statistics of past experience. In order to be successful the statistician who furnishes the ultimate data from which rates are derived must be provided with an "insurance written" and a "loss" card for every risk, showing the state and the city or town in which located, the occupancy class in which the risk falls, the amount written, the term of the contract, the expiration, the grade of building, the grade of occupancy, the grade of internal

[14] "Classified experience" must be carefully distinguished from the "classifications" described earlier in this paper, which have little if any value for rating purposes.

[15] Full title *The Experience Grading and Rating Schedule*, by E. G. Richards, until recently President of the National Board of Fire Underwriters, New York, 1915.

exposure and external exposure, etc. The use of this information will be apparent later. It is proposed when the data are available to divide and subdivide the cards in order to arrive at the particular kind of information desired. For this some method of classification must be adopted.

The method of procedure is (1) to ascertain the ratio of losses, expenses and a fair profit to the insurance written on all risks in the United States, (2) to obtain a similar ratio for the average risk in each particular state, (3) to ascertain the average United States' rate on a risk of a specific class. Since the first two steps given are to be accomplished with relative ease, consideration of them may be deferred until later and attention first devoted to the method employed in connection with the ascertainment of an average United States' rate on a risk of a specific class. It is to be emphasized that the data for this rate are to be obtained from experience throughout the United States, for no one state is sufficiently large to furnish a safe average experience upon a given class of risk.

In order to classify experience for obtaining a rate on a risk of a specific class, three principal features of hazard are distinguished. The cards above mentioned are to be divided according to inherent hazard, internal exposure and external exposure. Being a departure from the rather general division of hazard into construction, occupancy and exposure, these classifications require some definition. *Inherent hazard* is the danger of loss due to inherent qualities of an occupancy; the volume of inherent hazard would be modified by the character of building in which contained. *Internal exposure* is the danger of loss due to the presence in the building of occupancies other than the risk under consideration. *External exposure* is the danger of loss by reason of surrounding hazards outside the building of the risk in question. Therefore the total hazard is considered as comprising the hazard emanating from the inherent qualities of the risk in question, the hazard consequent upon the existence in the same building of other occupancies and that present by reason of the environment outside the building in which the risk is situated. The method of treating these three principal features of hazard is similar and a detailed description of inherent hazard alone will be sufficient.

The cards of inherent hazard are first divided into ten grades of towns; the town grades being determined by a plan of the Fire

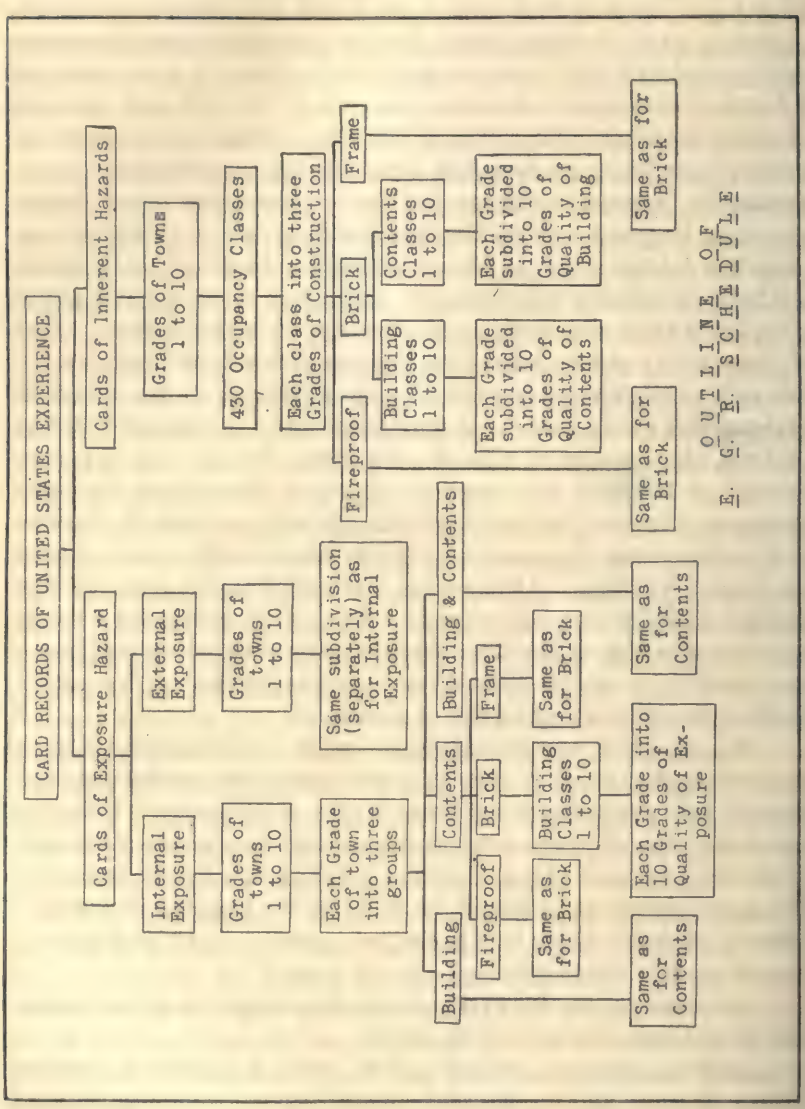
Prevention Committee of the National Board of Fire Underwriters. Each town grade is then sub-divided into 430 occupancy classes, according to a National Board occupancy table which designates building risks by odd numbers and contents risks by even numbers. A *building* containing wholesale groceries is No. 137 and *wholesale groceries* contained in a building No. 138. These occupancies are classified as being in fireproof, brick or frame buildings. Occupancies in fireproof buildings are then sub-grouped in 10 classes, according to quality of building if a building risk or quality of contents if a contents risk, and brick and frame buildings are similarly treated. There now exist for each occupancy thirty quality grades of building risks and thirty quality grades of contents risks. Each of these thirty grades must then be sub-divided, the building risk grades into ten groups according to the quality of contents and the contents risk grades into ten groups according to quality of building. In brief, the amount of risk is determined by (1) the type and quality of building construction, of which there must be many classes, to allow for the variety of risks to be found and (2) the class and quality of the occupancy, of which there must be many groups for the same reason. After such a division of experience, it will be possible to determine, for example, inherent loss cost upon a wholesale groceries risk of the fifth grade situated in a brick building of the 1st class in a first-class city. Assume this to be, for sake of illustration, 87 cents per $100 of insurance.

It is necessary now to classify the cards of writings and internal exposure losses, which is done in a similar manner, except that subdivision into each occupancy class is now unnecessary. Following the same plan of refinement of experience, ten grades of quality of exposure for each of ten classes of buildings are finally arrived at. It is now possible to ascertain for example the loss cost of a grade 2 internal exposure to an occupancy in a grade 1 brick building in a first-class city; which assume to be 35 cents.

A similar process for external exposure reaches a similar climax and an external loss cost of 23 cents.

Thus an inherent loss cost of 87 cents, an internal exposure cost of 35 cents and an external cost of 23 cents compose the total loss cost of the risk, $1.45 per $100 of insurance. A summary of the procedure thus far is given in the accompanying chart.[16]

[16] Originally published in the author's "Fire Insurance Rates," *Quarterly Journal of Economics*, August, 1916, and reproduced here with the kind permission of the *Quarterly Journal*.



E. G. R. S C H E D U L E

OUTLINE OF

But such cannot be the rate on the risk for it would make no provision for expenses or profit. A study of expense statistics leads the schedule's author to the conclusion that expenses are about 41½ per cent of all costs; therefore the loss cost, $1.45 must be 58½ per cent of the total cost. In this basis $1.02 would have to be added to the loss costs for expenses, giving $2.47 as the total cost. Adding to this 5 per cent of itself, or 12 cents for profit, the final rate is $2.59 for a risk of this particular nature *in the United States.*

But losses and expenses on risks vary with the state in which a risk is situated. One of the complaints against other systems of rating, as was noted, was the failure to give sufficient consideration to the loss record of the state. It is necessary to proportion this rate of $2.59 to the loss record of the state in which the risk is situated, which we may assume to be New York. The average rate of premium for all risks in the United States is found, by reference to statistics which are available of stock companies' underwriting experience, to be 112.5 cents, this figure including expense and 5 per cent profit. The average rate of premium for all risks in New York is found to be 75.1 cents.[17] The risk in New York state should pay only about 751/1125ths of the average rate of a particular class of risk in the United States. For a risk of the kind for which figures have been assumed here, situated in New York state, the rate would therefore be 751/1125ths of $2.59 or $1.73 per $100 of insurance.

A noteworthy feature of this system of measuring hazard is the avoidance of dependence upon the experience of a single state. Instead the rate for a given kind of risk *in the United States* is arrived at and the rate for a given risk *in any particular state* is found by a proportion in which the rate in the given state is to the rate in the United States as the experience of the state is to the experience for the entire United States. By this device the danger of inadequate data as a basis for premiums is immensely reduced while, on the other hand, the risks in every state are rated in accordance with the experience of their particular state. The E. G. R. schedule is thus plainly an endeavor, however successful or unsuccessful may be its results, to fairly meet the objections of critics to existing methods of measuring hazard.

[17] In arriving at the average rate for a state unusual conflagration losses are apportioned among all states. California's loss cost would be 2.327 if it bore the total conflagration loss itself but is considered as only .716 per cent after the conflagration loss is distributed among all the states.

With regard to conflagration losses it has always been contended that no single state's experience was sufficient to form an average, since conflagration losses are sudden, extremely large and occur at indeterminate intervals; and statistics of fire losses verify this assertion. The costs of such uncertain and incalculable losses, if collected solely from the risks of the particular state in which the great fire occurred, would make the average rate so excessive as to be uncollectible. Thus the Bangor fire causes the average loss cost in Maine for the ten years 1903–1912 to be $1.02, the Baltimore fire makes the cost in Maryland $1.26 and the San Francisco fire raises the cost in California to $2.33. Only the entire United States experience (if that) will suffice for the averaging of such losses, and the schedule under consideration arranges for this by distributing them among all the states. Apportioning the large losses of this kind among the states, the loss cost of Maine is reduced to $1.00, that of Maryland to .47 and that of California to .72. It is alleged that formerly the companies were accustomed to recoup such losses in such localities and from such classes of risks as might be most convenient without regard to the equity of the collections. Thus it was stated that "In applying the San Francisco advance, the exchange was instrumental in perpetrating an injustice upon the insuring public. . . . . Assuming that necessity existed for such a step, the burden should have been equitably distributed over the entire country or at least over the conflagration areas of the country. As it was, rates were not advanced everywhere, nor was such advance uniformly maintained where it had been effected."[18] Any effort to provide a systematic method of treating the advances in rates made necessary by conflagrations is certainly to be commended.

But the fundamental and basic feature of importance in this schedule is the effort to provide a statistical foundation for rates, so that the latter become the exact reflection of the results of experience. This endeavor strikes at the root of the criticism that the equity of a rate should be demonstrable by figures, and if feasible will definitely remove the present objection to methods of rate-making. However unsatisfactory the immediate results may be conceived to be, such a proposal affords at least an opportunity for the constant improvement of a single and well-defined plan as con-

[18] Report of S. Deutschberger to the Insurance Dept. of N. Y. July 21, 1913.

trasted with the previous procedure of successively presenting different types of schedules in the hope that one might be attained which would render results satisfactory to the public and the underwriters. It would seem that the proposal to utilize experience in a statistical form would appeal equally to the insured and the insurer, inasmuch as it would be of immense assistance in removing the prejudice and ill-considered legislation which have rendered unpleasant the past relations of the companies and the public.

A few words may be said concerning the collection of the data necessary to make practicable the plan outlined. On January 1, 1915, a standard classification was adopted and the Actuarial Bureau of the National Board of Fire Underwriters began the collection of experience from nearly 190 companies, fully one-third of which were mutuals and non-members of the National Board. Its work has been greatly furthered by the coöperation of the insurance departments of a number of states and there were in May, 1916, 236 companies coöperating in the work, including 125 National Board companies, 59 non-member companies and 52 mutuals. During the year 1915 about 650,000 loss reports were received and at the present rate there will be on file at the end of 1916 over a million reports of losses sustained and paid by members of the Bureau.

INSURANCE OF THE CATASTROPHE HAZARD

By Ralph H. Blanchard, Ph.D.,

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In insurance, as in other forms of business enterprise, an excess of disbursements over income is fatal to success, and security against the consequences of events which abnormally increase disbursements is a matter of primary interest to insurers and to policyholders. The largest and most variable item in the disbursements of an insuring organization is that attributable to "losses," payments on account of the occurrence of events against which insurance has been granted. Premiums, which are supposed to provide resources to meet loss payments, are calculated on the basis of the theory that past losses furnish an approximately accurate guide to the future. Hence an abnormal excess of actual losses over expected might bring about such an increase of disbursements as to lead to embarrassment or insolvency for the insurer and to inadequate protection for the insured.

Any event which causes a loss sufficiently great to embarrass an insuring organization and to endanger the security which it offers to policyholders is known as a "catastrophe." The point at which losses resulting from a single event become sufficiently large to classify the event as a catastrophe varies between insurers; the larger the income account, the larger the loss which can be experienced without serious disturbance. It varies also in the minds of insurance officials; the more conservative the management, the lower the point. Wherever the point may be, adequate protection of the policyholder demands that the insurer take measures to secure itself against such catastrophe losses.

Susceptibility to catastrophe varies greatly between different classes of risks and is dependent upon the probability of a single event causing a serious loss. The congested districts of large cities are subject to catastrophies in the form of conflagrations; isolated farm houses present no possibility of such losses. A single mine accident may cause deaths and injuries which entail abnormally large payments under a compensation law; an equivalent accident could not occur to the widely scattered drivers of a taxicab company.

The employes of a factory operated by steam power are subject to an explosion hazard which does not exist in an electrically operated plant.

Further, the catastrophe hazard bears no necessary relation to the average losses on a given class of risks. One class may show a heavy loss experience due to a large number of individual losses, no one of which is unusually serious. In another, losses may occur only occasionally but each loss may be extremely heavy, approaching or reaching the point which places it in the catastrophe group.

No one form of security against the catastrophe hazard has become standardized, each insurer adopting whatever of the available agencies seem best or most expedient—its decision resting on considerations of the size and character of its business and its underwriting practices. Three general methods are in active use; refusal to assume risks involving a catastrophe hazard, accumulation of reserve funds from which extraordinary losses may be paid, and shifting catastrophe risks to other insurers through reinsurance.

Limits. The simplest and most obvious method of dealing with the catastrophe hazard is to avoid it altogether by refusing to accept liability for losses beyond a certain amount on a given risk or group of risks. A fire insurance company may limit the amount of insurance which it will write on a single building, in a single block, or in a single "conflagration district." Employer's liability insurance is written with standard limits of $5,000 and $10,000; the $5,000 limit applying to liability for the injury of any one man, and the $10,000 limit applying to liability for injuries arising out of any one accident.[1] Underwriters at Lloyds limit the amount of marine insurance which they will grant on a single vessel; life insurance companies refuse to write policies with too large a face value; and principal sums of accident insurance policies are restricted in like manner.[2]

Further examples of this type of practice could be cited from practically every form of insurance. It is the individualistic method

[1] An increase in these limits involves the payment of additional premiums, the amount of which is determined by the susceptibility of the risk to the catastrophe hazard.

[2] Limits are also often set in order that the insured may not be able to make a profit by collecting the amount of the insurance, thereby minimizing the moral hazard.

of meeting the problem, each insurer assuming whatever risk it can safely carry and leaving the remainder to be placed with other insurers or retained by the policyholder. Its application forces large concentrated interests to seek their insurance from several insurers and increases the complexities attendant on a settlement of loss.

Accumulation of Catastrophe Reserves. Every insurance organization maintains a surplus from which, if necessary, unusual demands may be met. Even with careful attention to the limitation of risk there is a possibility of unusually heavy losses due to general conditions, and occasionally risks which underwriters have considered as "separate and distinct" may be shown to be connected in an unforeseen manner. Proper mangement requires a fund which will provide financial reënforcements with which to meet such losses.

Some organizations assume risks which are known to involve a catastrophe hazard on the theory that, while a catastrophe loss may embarrass them if it must be met from a single year's income, they will be able to meet such losses successfully if spread over a term of years. These insurers accumulate a "catastrophe reserve" by setting aside an appropriate amount. Depletion of the reserve to meet extraordinary losses is corrected by new accumulations in following years. The state workmen's compensation funds are required by law to maintain such reserves which, with one exception, are their sole immediate resource for meeting catastrophe losses. For example, in New York ten per cent of the premiums received by the fund are to be set aside until a total of $100,000 is reached, after which five per cent are to be set aside until the fund is large enough to cover the catastrophe hazard.

Maintenance of catastrophe reserves by individual insurers is at best of limited efficacy, particularly in the case of young or small organizations. Their adequacy as a protection against serious loss is open to question in most cases and they require that large sums be kept on hand in comparative idleness.

Reinsurance. Reinsurance is the latest and most favored method of dealing with the catastrophe hazard. The practice of limiting risks is objectionable to policyholders, who prefer to place as much insurance as possible with one company, provided it offers ample security; and also to insurers, who desire to offer coverage for

large risks and thereby increase the attractiveness of their agency contracts. The practice of reinsuring with other companies that portion of a risk which involves a catastrophe hazard enables a single company to assume large "lines" and, at the same time, offer security to its policyholders. Each reinsurer limits the risk which it will assume in order that its own stability may not be threatened, and requires the original insurer to retain a certain part of the risk to promote careful selection.

Reinsurances may be effected by the submission of individual risks to the reinsurer for acceptance or by means of a general contract under the terms of which the reinsurer automatically assumes a stated amount on each risk at the moment that the risk is written by the original insurer. Reinsurers are divided into two broad classes; independent reinsurers, whose relation to the reinsured is purely one of contract for indemnity, and mutual reinsurance organizations of which the reinsured are members.

Fire Insurance. The practice of the Associated Factory Mutual Fire Insurance Companies illustrates one method of reinsurance. If one of these companies accepts a risk larger than it seems wise to carry it immediately negotiates with other factory mutuals to cover the excess above the amount which it desires to retain. The amount ceded to any other single company depends on the judgment of the reinsurer and the reinsured as to the risk which can be carried safely. Under this plan each risk and each reinsurance is a separate problem to be independently settled.

The "reinsurance treaty," a form of contract used by European companies specializing in reinsurance, furnishes a simple and comprehensive method for shifting surplus risks. Under the terms of these contracts the reinsurer agrees to assume automatically a specified portion of each risk, subject to limitations of amount and location, as soon as the orignal contract becomes binding on the reinsured company, provided notice is given as required. The reinsurer agrees to accept a proportionate amount of the premium collected, minus a percentage for commission and other expenses; and to abide by the loss adjustments of the original insurer. In some contracts there is provision for profit-sharing on the business ceded. Contracts of this sort relieve insurers of the trouble of separate negotiation for each risk and remove the danger of loss between the time of acceptance of the risk and the placing of rein-

surance. Loss of profits which go to the reinsurer and the difficulty of watching European companies are drawbacks of the plan. In 1915, $63,538,652, or nearly two-fifths of the premiums paid for reinsurance by companies operating in the state of New York, were paid to treaty companies.

Desiring to retain the reinsurance business in their own hands a number of companies writing fire insurance have organized mutual associations for the purpose of distributing the catastrophe risk. The largest of these is the Reinsurance Bureau, an organization of sixty-three American and European fire insurances companies, which writes reinsurance on risks in thirty-four states. The Bureau is in charge of a manager who acts as attorney for the member companies, accepting and distributing risks according to a basic agreement covering its operations. Risks in certain localities and of extremely hazardous character are barred and limitations are placed on the amount of those which are accepted. The original insurer is required to retain, on certain risks, an amount equal to that ceded through the Bureau and, on other classes, an amount equal to at least one-half of the amount ceded. All cessions, if made within the rules, are obligatory and binding. Members participate on a percentage basis, each being responsible for its individual participation of one to three per cent of all reinsurance effected.

The Reinsurance Clearing House, an association of fifteen fire insurance companies, combines the automatic cession feature of treaty agreements with a mutual form of organization. Each member company assumes five to twelve and one-half per cent of the reinsurance risk and participates in earnings and losses.

A company may and usually does employ more than one method of avoiding catastrophe losses. Limits must be set for localities and risks not covered by reinsurers. Even though a company retains but a relatively small amount on individual risks it must limit the number of risks which it carries in a given area, for a conflagration might cause a heavy drain on its resources through the occurrence of a large number of small losses. In order to cover a large risk reinsurance must often be secured from several reinsurers as each places a limit on the amount it will assume. Maximum possible coverage is further limited by the amount of reinsurance which can be obtained through all available and desirable agencies.

Workmen's Compensation. It is usually required by law that the amounts payable to injured employes under a workmen's compensation policy shall be limited only by the provisions of the compensation act. An insurer can apply the principle of limits only by refusing to accept undesirable risks. If a risk is accepted it carries with it the catastrophe hazard incident to its classification. Reinsurance is, therefore, peculiarly necessary in this branch of the business in which the reinsurer, in return for a percentage of total premiums, assumes liability for all losses in excess of a specified amount arising out of any one accident.

A considerable amount of this business is handled by London Lloyds and by the larger insurance companies but the mutual principle has been applied in at least two organizations; the Workmen's Compensation Reinsurance Bureau, and the Mutual Corporations' Reinsurance Fund. The Bureau is maintained by fifteen stock companies which pay into a general fund five per cent of premiums received on account of risks in the state of New York and two and one-half per cent of premiums from other states. With the exception of losses on certain prohibited extra-hazardous classifications, the bureau assumes liability for losses due to a single accident in excess of $25,000. Members participate in any surplus above the requirements of the fund and are liable for assessments in case of a deficit. For accounting purposes the bureau divides its business into two groups according to the percentage of premiums paid, each group being financially distinct. Dividend payments are subject to the requirement that a fund of $250,000 be accumulated and maintained for each group.

The Mutual Fund is operated on a somewhat similar plan. Its membership includes nine mutual companies in New York State. Contributions of five per cent of total premiums are made to the fund and each company is liable, if necessary, for an additional assessment of five per cent of premiums collected during the year preceding a catastrophe loss. Losses in excess of $25,000 but not exceeding $100,000 are paid from the fund. The risk in excess of $100,000 is usually shifted to other reinsurers.

Akin to these organizations is "The Associated Companies," a combination of ten stock companies exclusively for the writing of mining risks, which involve a high degree of catastrophe hazard.

All premiums and losses are divided among the companies equally, the ordinary as well as the catastrophe risk being distributed.

No attempt has been made to cover the entire field of reinsurance—examples might be cited *ad infinitum* but those presented are sufficient to show the growing tendency to extend the principle of insurance from the distribution of the losses of individuals to the distribution of losses of insurers. Insurance organizations, by protecting themselves, can offer greater security to their policyholders and enable large property owners to carry their insurance with a relatively small number of companies. Systematic coöperation has increased the ease and certainty with which business affairs may be conducted.

THE DISABILITY INSURANCE POLICY

By A. P. Woodward,

Secretary, Accident Department, Connecticut General Life Insurance Company.

Accident insurance had its inception in England with the Railway Passengers Insurance Company of London in 1849, and, as the name of the company implies, this form of insurance was suggested by the perilous adventure of a journey on the then new railroad train. From this limited coverage it has been gradually extended to include practically all accidental bodily injuries. Insurance against loss from sickness or disease is more recent in its development. In the last thirty years it has grown in volume from a premium income of approximately $2,000,000 to approximately $33,000,000 annually.

This insurance, which is generally termed a disability insurance policy, is primarily a contract of indemnity, though in so far as it provides any payment in the event of death, it involves the principles of a limited life insurance. Apart from this feature, the policy is a contract of insurance against material or pecuniary loss on the part of the insured. To entitle the policyholder to benefits under the policy he must sustain a loss either of some member of the body as, for instance, a hand or foot, or of his time; pain or inconvenience does not come within the scope of the insurance.

Carrying the principle of indemnity into practice, the underwriter in issuing policies sees to it that the amount which he promises to pay for any fixed loss bears a reasonable relation to the financial condition of the applicant, and when the policy is of a form providing for the payment of a stipulated amount per week or per month for loss of time that such amount is fixed at something less than the average weekly or monthly earnings of the applicant. The word "earnings" is used in distinction to income to define that part of the insured's income resulting directly from his labor and to exclude such part of it as results from invested funds through sources not dependent upon the application of his time.

THE APPLICATION

Before attempting an examination of the policy contract, consideration must be given to the application for the insurance, which is the foundation upon which the policy rests. This application, either in the form of questions and answers or by statements of the applicant, is designed to give to the underwriter such information as will identify the insured and enable him to carry out the applicant's wishes should loss occur; to fix the premium charge by determining to what extent the applicant is exposed to the hazard of injury; and, lastly, to determine whether the applicant is in normal or abnormal physical condition.

It is assumed that the possibility of injury from accidents "common to all," *i.e.*, accidents about the dwelling, on the streets and highways, while riding in public conveyances and in recreation, is practically the same for all classes of applicants. The difference in the hazard of any risk lies in the occupational exposure, and some idea of how widely they differ may be gained from the premium tables varying from $5 to $30 per unit of insurance. The standard manual lists over 6,000 occupations divided into ten classifications containing practically all occupations with the exception of a few special hazards connected with mining and railway operation. Individuals in the same business or occupation differ widely in their exposure to injury and, therefore, it becomes necessary to determine not only the occupation but the duties of the particular applicant in that occupation. Investigation in a case in which the applicant described his occupation as "General Manager of the ——— Railroad Company, executive duties and traveling," disclosed that the ——— Railroad was fourteen miles long and that the General Manager regularly collected tickets, handled baggage and express goods, and occasionally operated a gasoline motor car in which passengers were carried—I cite this case as an illustration of the need for knowing more than the title of an occupation to determine in what work the applicant is engaged. Difference in occupation is not taken into account in determining the premium charge for disability due to sickness.

Disability insurance is issued without medical examination, the underwriter relying upon the insured's statement of his age, height, weight, such medical or surgical treatment as he may have

received, and any condition of bodily or mental infirmity from which he is suffering.

A copy of the application is made part of the policy contract, and under it the applicant agrees that the right to recover on any policy of insurance issued upon the basis of the application shall be barred in the event that any one of its statements, material either to the acceptance of the risk or to the hazard assumed by the company, is false; or in the event that any one of its statements is false and made with intent to deceive.

THE POLICY

Having briefly examined the application, we may now turn to the policy itself. There is no standard form of disability insurance policy created by legislative enactment as in some lines of insurance, but custom has gradually developed what may for practical purposes be considered a standard policy, and for purposes of this analysis we will assume that we have before us such a typical policy providing $7,500 principal sum and $25 weekly indemnity.

What is the nature of this insurance? The answer is found in the insuring clause and perhaps no single proposition of insurance law is so generally misunderstood as that applicable to its proper interpretation.

At the outset it becomes apparent that two causes of loss are contemplated—loss due to bodily injuries and loss due to sickness or disease with a sharply drawn line of demarcation between them. Furthermore, it is attempted to cover only a part of the personal losses—death, and loss of hands, feet, eyes, etc., from but one of several ways by which they may occur. The obvious explanation of the misunderstanding of the insuring clause is the endeavor to express this limitation in a few words, and in the very nature of things it is not surprising that border-line cases constantly arise. It is necessary to consider this policy as though there were two distinct contracts of insurance, one insuring against injuries and the other against diseases. We will examine the accident feature first.

For upwards of fifty years the enacting clause, or insuring clause, of the accident insurance policy has provided benefits in the event of loss "resulting from bodily injuries effected directly and independently of all other causes through external, violent and

accidental means." Owing to the construction put by the courts upon the words "external" and "violent," they are of little, if any, importance in determining liability in any case, and there is a marked tendency on the part of underwriters to omit them from the present-day policies so that we may, therefore, consider this clause as though it read "against loss resulting from bodily injuries effected directly and independently of all other causes through accidental means." Two distinct propositions are embodied in this insuring clause: first, it must be shown that the insured suffered a bodily injury effected through accidental means; and second, that the bodily injury so effected was the sole cause of the loss. Much of the misunderstanding has arisen because of failure to keep this dual requirement in mind and to properly apprehend the meaning of accidental means.

In one of the earliest cases construing an accident policy the United States Supreme Court laid down this rule:

> that if a result is such as follows from ordinary means voluntarily employed in not an unusual and unexpected way, it cannot be as a result effected by accidental means, but if in the act which precedes the injury, something unforeseen, unexpected, unusual occurs which produces the injury, then the injury has resulted from accidental means.

The occurrence of an injury does not justify the conclusion that it was effected through accidental means. It may be the unforeseen or unlooked for consequences of an intentional act, or it may be the consequences of an unintentional or unlooked for act, and it is only the latter which come within the scope of the policy. Perhaps an illustration may make this distinction clearer. In a recent decision it appeared that the insured was sitting in an armchair and for the purpose of demonstrating his strength, placed his hands on the arms of the chair and raised and lowered his body. This unaccustomed exercise brought about a rupture of a blood vessel. The court concluded that though the injury was clearly an accident, it was not effected by accidental means because the insured did what he intended to do in the way designed and the only unexpected occurrence in connection with the incident was the unfortunate result.

Having determined that bodily injuries are effected by accidental means, it becomes necessary to revert to the second of the two limitations of the insuring clause and show that these injuries

alone produced the loss. If the injury starts a train of circumstances and the final link is a disorder which ordinarily would be termed a disease, liability attaches under the policy, for the injury must be regarded as the sole actuating cause of the loss; for instance, death due to pneumonia following a severe blow on the chest. If, on the other hand, the insured is suffering from a disease or bodily impairment or abnormality which, coöperating with the injury, produces the loss, liability does not attach. The principle involved is simple enough, but its practical application, involving as it does, a determination of fact, requires close and subtle reasoning and is a source of frequent misunderstanding.

Having brought the happening within the limitations of the insuring clause, let us examine the various benefits provided for the resulting loss. For loss of life and for certain specific losses that could not otherwise be definitely and satisfactorily measured in dollars and cents at the time of their occurrence, the principal sum or some proportionate part is payable. This typical policy provides for loss of

Life Both Hands Both Feet Sight of Both Eyes Hand and Foot Hand or Foot and Sight of an Eye	$7,500
Hand Foot	3,750
Sight of an Eye	2,500
Thumb and Index Finger	1,875

The loss and its cause must be so linked together as to reasonably exclude the possibility of a subsequently acquired infirmity complicating or in part causing the loss. If the injury is such as prevents the insured from performing all of the duties of his occupation from the date of its occurrence and during the continuance of this condition one of these specific losses occurs, the benefit provided for that loss is payable. If, however, the injury should not produce an immediate disability, it is necessary to link cause and effect together in point of time so as to reasonably protect

both the insured and the insurer. Sufficient time must elapse to allow the injury to develop and for such surgical attention as it may necessitate, and on the other hand the period of time must be sufficiently short to exclude any question of doubt as to the cause of the loss and at the same time make the contract definite and certain. Ninety days is the time fixed by practically all policies for the occurrence of this loss following an injury unless, as just pointed out, the loss and the injury are continuously connected by a period of disability.

Only a small percentage of injuries result in loss of life or of some member of the body. The large percentage cause loss of time for which benefits are payable. The policy defines two classes—total disability and partial disability.

This typical policy reads as follows:

> Or if such injuries alone, independently and exclusively of all other causes, shall from the date of the accident wholly and continuously prevent the insured from performing any and every kind of duty pertaining to his occupation. . . .

This provision lays down three conditions by which each given set of facts are to be measured to determine the respective rights of the insured and the insurer. It defines total disability as that condition during which the insured is unable to carry on any of his business duties. If such disability exists, did it immediately follow the injury? If such disability exists and it immediately followed the injury, is it continuous? Again the limited nature of the insurance becomes obvious and we see that only a certain kind of disability is within the coverage of the policy. Assuming that such a disability is established, this typical policy provides a benefit of $25.00 weekly, payable as long as the disability lasts, be it for a few days, a few months, or possibly the balance of the insured's life.

Partial disability, as the name implies, is something less than total disability and is defined by the policy as an inability to perform "one or more important daily duties pertaining to his occupation." The same limitation exists here as in the provision regarding total disability, though this condition of partial disability may either immediately follow the injury or follow a period of total disability and, instead of being payable during the duration of disability, is limited to a period which is very generally fixed at

twenty-six weeks, providing, under this typical policy, a benefit of one-half the total, or $12.50 a week.

Statistics compiled from a large number of cases show that fractures, dislocations and similar injuries produce an average period of disability. A schedule of such injuries as permit a clear definition with the benefits payable, determined by applying to the amount of the policy this average period of disability, is incorporated in the contract. The insured has the option of taking this benefit, payable immediately in a lump sum, or of awaiting the termination of his disability and taking the amount stipulated per week under the policy.

Beginning in 1909 there has been a series of legislative enactments relating to accident and health insurance which fortunately have been practically uniform in the several states. Uniform phraseology of certain "standard provisions" is prescribed and these provisions must be incorporated in every policy issued.

A clear understanding of the nature of the accident insurance policy requires an examination of one of these provisions generally referred to as the pro-rate provision, which reads in part as follows:

> In the event that the insured is injured after having changed his occupation to one classified by the insurer as more hazardous than that stated in the policy, or while he is doing any act or thing pertaining to any occupation so classified, except ordinary duties about his residence or while engaged in recreation . . . . the insurer will pay only such portion of the indemnities provided in the policy as the premium paid would have purchased at the rate but within the limits so fixed by the insurer for such more hazardous occupation.

In analyzing the application I laid some stress upon the insured's occupation and a description of the duties performed by him, and I called attention to the classification of risks by occupations. The "Standard Provision Law" recognizes this control of classification by occupation to the extent of saying to the parties that even though they have agreed upon a policy providing a certain benefit, yet if the insured has met with injury through exposing himself to greater probability of injury than was contemplated when the policy was written, the benefits payable shall not be the sum for which the policy was written, but only such proportionate part as is commensurate with the increased exposure.

Turning to the provisions for loss due to sickness, we find that loss of life, hand, foot, sight, or any member of the body is elim-

inated, and the benefits limited to loss of time. The language used in the insuring clause is "against disability from sickness or disease," contracted during the term of the policy and requiring treatment by a physician.

As in the accident feature, two degrees of disability are recognized—total and partial. The definition of total disability is the same. Partial disability is defined somewhat differently as an inability to perform "one or more important daily duties pertaining to his occupation, sustaining a loss of at least one-half his business time each day." This partial disability must also follow total disability.

The payment of benefits is limited to a period of fifty-two weeks for either total disability or total and partial disability combined. In this typical policy either $25 or $12.50 a week is payable.

If the disability is of a permanent nature, upon proof that it has existed for twelve months and resulted in the loss of the use of hands, feet or sight, an additional benefit equal to forty-eight times the weekly benefit for total disability is payable.

Old age is recognized as a factor causing disability from sickness and an increase in the premium table is made beginning with age fifty-one.

Losses of any description due to war, military or naval service, aviation, and sickness sustained in the tropics, are specifically excluded in the coverage of the policy.

We have considered the essential elements of the disability insurance policy. Competition has taken the form of increased benefits rather than a reduction of premium rates. Accordingly we find this typical policy providing for the payment of double benefits if such injuries are sustained (a) while a passenger in or on a public conveyance provided by a common carrier for passenger service (including the platform, steps or running board of railway or street railway cars); or (b) while a passenger in a passenger elevator (excluding elevators in mines); or caused (c) by the burning of a building while the insured is therein at the commencement of the fire; or (d) by the collapse of the outer walls of the building while the insured is therein; or (e) by a stroke of lightning; or (f) by a cyclone or tornado; or (g) by the explosion of a steam boiler.

Provision is made for the payment of certain fixed amounts

varying from $5 to $100 should the injuries or sickness necessitate one of a number of operations enumerated in the schedule of operations contained in the policy; and if the injuries or sickness require hospital treatment, the payment of the expenses incurred, not exceeding $12.50 a week for twenty weeks. If the injuries do not cause a loss for which indemnity is payable, but do require surgical treatment, provision is made for the payment of the surgeon's bill, not exceeding $25.

Also provision is made to place the insured in the care of relatives or friends, provided such expense does not exceed the sum of $100, should he by reason of injury or illness be unable to communicate with them and the company be notified of his condition.

The policy also sets forth the procedure to be followed in giving notice of injury, payment of benefits and changes in the insurance.

Special needs of individual insurance are usually taken care of by endorsement upon the policy or by means of riders embodying special provisions attached to and made part of the policy.

THE CONCLUSION

In conclusion I am tempted to indulge in a brief speculation as to the future development of this branch of insurance. The present-day disability policy is a product of a slow evolution which has not always been logical. Originally designed to cover only railroad accidents, gradually the various limitations have been removed from it until today it covers all accidents, and the supposed danger of railroad travel has in the light of underwriting experience diminished to the point where double benefits are paid for such accidents. Why the insured's time should be worth twice as much if he is disabled through meeting an injury while riding on a train as it is if he fell down stairs in his own dwelling and sustained the same injury is difficult to explain.

Properly viewed, disability insurance is but a part of that enormously important branch of insurance which, for want of a better name, may be called personal insurance to distinguish it from commercial and property insurance. This personal insurance includes loss due to death, to disability from any cause, and against the certain infirmities of old age.

Assuming that a person has responsibilities for which provision must be made in the event of death, why should he pick out one of

the forms by which his life may be terminated and insure against that to the exclusion of all others? Accidents cause approximately 9 per cent of all deaths in the United States, while pneumonia causes approximately 14 per cent but we do not insure against death by pneumonia alone, though apparently it would be more logical to do so. The death hazard is properly covered by life insurance, and there seems no clear justification for a form of insurance covering it from the limited causes we have been considering.

Nor is there any real justification in endeavoring to distinguish between so-called accident disability and so-called sickness disability. Frequently it is well-nigh impossible to distinguish one from the other or to tell where one ends and the other begins. To the insured who is disabled, the loss is precisely the same. This also applies to the benefits for the loss of hands, feet or sight. What the insured needs is compensation for this loss regardless of what may have occasioned the loss.

Much waste occurs in the payment of an enormous number of trivial losses, losses that are not in any sense of the word real losses. Waste has to be paid for, and in the insurance business there is but one source from which the wherewithal to make payments can come and that source is the policyholder. The insurance company does not produce, its sole function being to collect and distribute. Therefore, some change is desirable to effect a saving of the amounts paid for these trivial claims of a few days' duration.

Disability insurance is sold—not bought, and its sale requires the entire time of a large body of highly trained and efficient salesmen. The modern disability insurance is a term contract running for a period of twelve months at most and frequently only for six or three months. Here again is a source of enormous waste—waste of time of these salesmen in going back each three or six or twelve months to arrange with their clients for insurance, not new insurance or more insurance necessitated by changed conditions on the part of the client, but the same insurance which the client carried during the preceding term. That waste also has to be paid for and again it is the policyholder who does the paying. Changes must be adopted that will make the insurance permanent in form and enable the salesman to devote his energies to the development of new business. These changes cannot be wholly effected by the

insurance companies. Unfortunately, state supervision of insurance has not always been guided by wisdom and foresight and regulations apparently justified by temporary expediency prove stumbling-blocks to future development. What is needed is not less supervision but supervision which, safeguarding the interests of the policyholder, is flexible enough to allow for such changes as are requisite to our economic and social development. The fullest measure of success can result only from an intelligent coöperation between the insurance departments and the underwriter.

ACCIDENT PREVENTION

By David S. Beyer,

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Development

The first serious attempts at systematic accident prevention were made abroad, following the introduction of compensation acts. From time immemorial it had been the rule that an injured workman was entitled to "damages" only if it could be clearly shown that he was injured through some fault of his employer. Therefore, for his own protection the employer would usually try to show that each accident was the fault of the injured workman or of one of his fellow-employes. Under these conditions it is not to be wondered at that little accident prevention work was done. Since the employer disclaimed all blame for the accident, he did not feel any responsibility for its prevention.

This situation was unsatisfactory for all concerned. It cost the employer large sums for accident expense, litigation, etc., only a small part of which ever reached the injured employe; it also brought about unending controversy and ill-feeling.

The first compensation act along modern lines was adopted in Germany in 1884, or more than thirty years ago. This act provided compensation for workmen injured in the course of their employment, regardless of whether it could be shown that the employer was at fault or not. This situation led to an entirely new attitude towards industrial accidents on the part of the employer. The prevention of accidents immediately became an important consideration, since the new act made it certain that each accident would add to the cost of his insurance. This resulted in a careful study being made of the causes of accidents and in the adoption of rules for their prevention.

Within the next few years compensation acts were passed in various other countries, until the beginning of the present century found that nearly all important civilized countries (with the exception of our own) had adopted the compensation principle in some form or other.

Fortunately, accident prevention in the United States did not wait for the passage of compensation acts (although the adoption of such acts has unquestionably given a decided stimulus to the movement). Energetic accident prevention campaigns were under way in some of the large corporations of this country ten years ago, or several years before the first compensation act went into effect. The good results thus accomplished have served as a constant inspiration for other plants to take up this work voluntarily.

It is interesting to notice the variation in methods used by the different countries in attacking the accident prevention problem. The German compensation act required manufacturers to insure in mutual associations, each association representing a certain industry. It then became the duty of these associations to prepare rules and regulations for the prevention of accidents in the plants insured with them. While excellent work has been done along this line it would seem that German paternalistic methods have been carried rather too far in accident prevention, as well as in some other lines. Instead of educating the workmen in principles of caution, rules of conduct have been prescribed in minute detail. For example, workmen are warned against reclining or sleeping on roofs or high scaffolds, or in occupied horse stalls; workmen are directed not to swing a hammer until they know that no one is standing behind them, whom they might hit; engineers are told to turn on the light in their engine rooms when it gets dark, etc., etc.

England has followed a different accident prevention policy. The method in England has been to outline general safety principles for the guidance of the employer, following this up by government inspection. Serious accidents are investigated by the inspectors or by special commissions, and where it is possible to place the blame on some individual, a fine is often administered. By way of illustrating these fines, the following examples from one of the annual boiler inspector's reports may be cited:

In one case where a laundry cylinder was wrecked, the fault was attributed to a defective casting, and the maker of the machine was fined $500. In another case, a cast iron dye extractor exploded on account of the reducing valve being inoperative and permitting excessive pressure. The mechanical foreman, who was responsible for keeping the valve in order, was found guilty of negligence and ordered to pay $100. In another case, an engine used for agri-

cultural purposes exploded on account of corroded plates. This engine was hired by one concern from another. The responsibility was divided between the owner and the user, and they were fined $125 and $250 respectively. In another case, an engine used on a farm exploded and a man who had advised the user to purchase it was fined $100. Apparently advice is not always so "cheap" as we have been informed! Thus we have the builder, owner, operator, foreman, lessor, lessee and advisor, all of whom suffered pecuniary punishment for neglecting to take what, in the eye of the law, was proper precaution.

In the United States a new and powerful agency has been employed for the prevention of accidents, in addition to safeguards and rules such as those used abroad. This is "Safety Education." It consists in the systematic training of the workmen along safety lines and the enlistment of their interest and coöperation in the safety movement. For this purpose, safety bulletins and moving pictures are used, safety signs and slogans are posted, safety talks are given. Safety committees are formed among the workmen themselves, through whose inspections valuable suggestions are often received. Through these and similar agencies the men are brought to realize that the accident problem is *their* problem, that the workman loses more than his employer when an accident occurs, and that he is the greatest gainer by accident prevention.

This plan of education has not stopped with the workman but has extended to the public through campaigns conducted by national safety organizations, state and municipal authorities, public service corporations, etc.; it has also been taken into public schools so that the new generation may be reared to think in terms of "Safety First" from the beginning.

VALUE OF ACCIDENT PREVENTION TO THE EMPLOYER

Employers are coming more and more to realize that accident prevention is "good business." Aside from the direct saving in compensation cost, accident prevention has an important bearing on the labor situation. In all manufacturing industries, labor forms a large item in the cost of the finished product. Any improvement in labor conditions has a direct effect on output and manufacturing cost. The sense of security and good will that results from the realization on the part of the employes that their

employer is doing everything he can for their safety thus becomes a valuable asset.

The prevention of accidents eliminates the cost of breaking in new employes to take the place of the injured workmen; it also eliminates the disturbance and loss of efficiency that naturally result on the part of other employes who see one of their number killed or injured. Last but not least among the benefits of accident prevention is the employer's satisfaction in knowing that the suffering and hardship which are the inevitable by-product of accidents, have been reduced to the minimum among the workmen for whose safety he is responsible.

VALUE TO EMPLOYES AND TO SOCIETY

If the prevention of accidents is important from the standpoint of the employer it is doubly so from that of the employe. Even where compensation acts are in effect, a considerable part of the financial loss is borne by the injured workmen. Beyond this,—it is the workman who suffers all of the pain. No money can make good to him the loss of his eyes or his hands, or repay him for having to take his place among his fellowmen, handicapped by some permanent injury.

From the standpoint of society at large, accident prevention is one of the important conservation movements of the day. According to reports of the Massachusetts Industrial Accident Board, the workmen of that state alone are losing about three million dollars per year in wages, as a result of industrial accidents. The employers of the state are required to pay something over four million dollars per year for providing compensation benefits. This cost must be ultimately carried by the consuming public in the form of higher prices for the goods it buys.

Thus it becomes apparent that the reduction of accidents means a direct economy to the entire community. It also reduces the burden of expense for maintaining courts, hospitals, and institutions of all kinds for the care of dependent families.

POSSIBILITIES OF ACCIDENT PREVENTION WORK FOR THE INSURANCE COMPANY

The company which insures employes against injury is in a peculiarly favorable condition to assist in the campaign of accident

prevention. Through constant investigation and observance of the causes of accidents, such a company is able to show the employer just what conditions should be eliminated in order to prevent a recurrence of these accidents. The person who is in touch with only a single plant is likely to underestimate the seriousness of the situation because comparatively few accidents occur in any one plant. Since the insurance company is familiar with not one, but many plants, it has a breadth of experience that is essential to a proper understanding of the accident prevention problem. Being constantly brought face to face with the human side of the question through its dealings with injured employes, the insurance company, in addition, is in a position to make a strong appeal to the humanitarian instincts of the employer.

THE PLACE OF ACCIDENT PREVENTION IN THE ORGANIZATION OF AN INSURANCE COMPANY

On account of the value of accident prevention work to the employer and its effect in reducing the losses of the insurance company, accident prevention is one of the most important lines of service an insurance company can maintain.

During recent years plans of individual rating have been adopted by nearly all compensation insurance companies. The principle of individual rating is to give each plant an insurance rate that will reflect its accident hazards, so that the good plant will receive a rate lower than the average, and the poor plant a rate higher than the average, based upon compliance with specified safety conditions.

Thus accident prevention becomes the basis of rate modification, and to its other features is added that of being an important factor in determining the premiums upon which are dependent the stability of the insurance company and the protection of the injured workmen.

FUTURE POSSIBILITIES

The ground-work of accident prevention has been well established. Commonly accepted safety standards have been developed, and the methods that produce the best results have been clearly demonstrated. What is needed now to insure the greatest success for this important work is publicity—a thorough dissemina-

tion of the knowledge that the great suffering and waste, resulting from our annual toll of accidents, can be largely eliminated. "Preparedness" for safety has established an organized army working effectively for this end. What is now needed is more recruits from all ranks—employers, employes, the public at large, the parents, the children.

While the high tide of the safety movement has not yet been reached in this country, the growth of this movement during the past ten years has been rather remarkable. It started with the work of a few scattered industrial concerns and is now actively supported by thousands of enthusiastic exponents all over the country. This growth reflects credit on the energy and progressive spirit of the American people, and points to even greater accomplishment as time goes on, and the purpose and possibilities of the safety movement become more fully understood.

METHODS OF INSURING WORKMEN'S COMPENSATION

By Harwood E. Ryan,

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The enactment of mandatory laws providing for the payment of work-accident indemnity has created in the United States an exceedingly interesting and important insurance problem. It is scarcely open to argument that a state, in requiring of employers that they shall pay such indemnity, is bound to provide means for making the burden reasonable and one that will not crush the individual employer. Without utilizing the principle of insurance this cannot be accomplished. Insurance at once enables the smallest employer to meet his obligation to provide the statutory indemnities and secures to employes the fulfillment of that obligation in the event of the employer's insolvency.

Workmen's compensation supersedes employers' liability as established by the common law doctrine of negligence. For something like thirty years in this country, employers' liability has been a field for insurance—principally for the joint-stock insurance corporations, but also, to a small extent, for mutual associations. As will presently be seen both of these agencies have been utilized in the transition from the doctrine of fault to that of workmen's compensation. Quite naturally so, since the mechanism of these organizations was already adapted to the needs of the new form of insurance. Operating under liability practice, these companies have developed and maintained elaborate organizations for procuring business, for collecting premiums, investing funds, inspecting risks, investigating accidents and settling claims. These same operations are carried on by them today with the sole—but fundamental—difference that in the adjustment of losses the doctrine of negligence does not enter.

Curiously, the mandatory laws do not invariably provide for compulsory insurance, but most of the elective laws recognize the insurance problem involved and require appropriate measures to be taken for securing the compensation payments.

Carriers of workmen's compensation insurance are of the following types. Their present relative importance is indicated by the

volume of premiums transacted in 1915, the latest year for which figures are now available.

1. Joint-stock companies	$31,250,000
2. State insurance funds	7,600,000
3. Mutual employers associations	4,500,000
4. Reciprocal exchanges—also called inter-insurance exchanges	2,000,000
5. Self-insurers	(not comparable)

Eliminating self-insurers, it is logical to group these carriers into two general divisions thus separating the mutuals from the stock companies.

STOCK COMPANIES

First in order of size are the joint-stock companies. These are business organizations which avowedly exist for the purpose of earning profits for shareholders. As before remarked, their entrance into the field of workmen's compensation is due to legislative recognition of existing agencies. These companies as a class have won favor because of their substantial character and the service which they have performed in behalf of employers under common law liability conditions,—the cost of insurance thereunder having been relatively low. Stock companies are required by law to maintain substantial sums (capital stock) for the protection of policyholders and claimants. Such sums are contributed in the first instance by the shareholders and frequently have been augmented from profits. The capital stock of the largest company of this type is six millions of dollars and there is besides more than an equal amount of free surplus over and above the reserves required to mature claims and other obligations.

The management of a stock company is vested in a board of directors. Many of these are business men successful in other lines of activity and are not necessarily insurance men at all. The insurance side of the business is conducted by salaried officials through appropriate committees. Of primary importance is the agency or sales department. The history of insurance the world over affords ample testimony of the necessity—in the absence of monopoly or legal compulsion—of carrying on the business through the instrumentality of paid solicitors.

The cost of acquisition in the field of workmen's compensation insurance is one of the mooted questions. On account of its social

character and of the greater premium cost when compared with employers' liability insurance, the companies have anticipated public criticism and have acquiesced in a reduced acquisition cost brought about by the concerted action of state insurance commissioners throughout the United States. The prevailing limitation of acquisition expense thus imposed is 17½ per centum of the premium charged. In states where the laws require that the employer secure by insurance the payment of compensation, it is an unsettled problem whether this seemingly heavy expense is justified. On the one hand it is claimed that compensation is in principle a tax upon industry, that the state should act as the medium of collection and that the stock company with its agency intermediary is peculiarly out of harmony with such principle. On the other hand it is argued that the agent is not merely a means for securing the business and collecting the premiums but that he performs valuable service to the policyholder in pointing out ways of preventing accidents and thus reducing the insurance rate and that by reason of his pecuniary interest he makes himself useful in obtaining prompt service for the employe in the adjustment of losses.

With one or two unimportant exceptions the stock companies transact business on the plan of guaranteed rates, *i.e.* they do not share profits with policyholders. The contractual relationship is purely a business matter. For the rate stated in the policy the company agrees to pay the indemnities provided by the statutory compensation schedule, and to perform certain service in behalf of the employer, its policyholder. It is customary to include a provision for insurance against common law liability in case particular employes of the assured should be found beyond the scope of the compensation act.

Among the arguments commonly advanced for insuring with a stock company the one of security is all-important. Not that there is magic in that type of organization but that the largest and strongest carriers at present existing happen to be stock companies. As an example it is a matter of recent history that a stock company domiciled in New York has retired from business, its capital impaired. It has successfully reinsured its outstanding workmen's compensation business and will probably pay in full all accrued claims. Other advantages claimed for stock companies are those of long experience in the casualty business and diversification of risk

through the extent of territory covered, thus producing a broad "spread" of the insurance hazard.

Against these are set the disadvantages of higher cost by virtue of stockholders' profits and agents' commissions and of greater operating expense due to the extent of the territory cultivated.

MUTUAL ASSOCIATIONS

Mutual associations may be next considered, for although not second in magnitude, the mutual principle furnishes the alternative to private insurance operated for profit.

Fundamental to mutual insurance is the idea of pooling interests. Groups of employers join together and create a fund out of which the losses are met. From their number a board of trustees or directors is elected and these in turn delegate the details of management to appropriate officers elected by them. A few mutual companies have been in the field for several years undertaking the obligations incident to employers' liability. Such organisms have multiplied in the general workmen's compensation movement which dates from 1910, over forty having transacted business in 1915.

In some states mutual associations have been especially provided by statute as a competitive factor. This is true wherever the insurance of compensation is mandatory, excepting where there is a state monopoly. In one state, viz., Massachusetts, the legislative commission appointed to report upon the (then) proposed compensation law, brought forward a proposal favoring the creation of an employers' mutual association and excluding altogether the stock companies. Existing mutuals, however, were to be allowed to continue. The legislature yielded to the argument that mutual insurance had not demonstrated absolute superiority over stock insurance and that competition should be permitted to decide the issue, the final result being that both forms have been provided for and a valuable experiment in mutual monopoly has been denied us.

With the exception of trade mutuals which generally are formed from the nucleus of trade associations such as millers, brewers, clothing manufacturers, etc., the mutual association transacts business along commercial lines. Like the stock company it is incorporated; the members are jointly liable for the debts of the corporation and the policy contracts contemplate a fixed rate of premium which is designed to pay for the capitalized value of the losses sustained.

It does not operate upon the assessment plan with premiums based upon current cost, but provision is made for assessment of members in case the capitalized losses are in excess of the premiums earned. This assessment feature is in lieu of capital stock and becomes the recourse of creditors in event of the company's insolvency. If the venture is successful, the members share in the profits and so obtain their insurance at reduced rates. The larger and stronger mutual companies employ solicitors, though not always upon a commission basis, frequently substituting therefor the fixed salary method of remuneration. The form of insurance contract adopted by the mutuals is essentially that used by the stock companies excepting for dividend and assessment features.

Mutual insurance offers the prospect of low cost by elimination of shareholders' profits and of part, at least, of the acquisition cost. The control of management is in the hands of the policyholders themselves. Trade mutuals are thus able to secure valuable knowledge of actual insurance cost in their line of business and by so doing to stimulate the granting of equitable rates by other carriers. In theory they are supposed to avoid the poorer classes of risk and so through favorable loss experience to further reduce the cost of insurance to their members. The prospect of dividends is attractive but to some minds is fully offset by the liability to assessment.

The ease with which mutuals may be organized has induced many irresponsible and inexperienced men to promote such institutions. Excepting where state supervision has held in check such tendencies, there is temptation to weaken the financial position of mutual associations by the declaration of excessive, and hence unjustifiable, dividends. Finally, the great bulk of these associations are of very recent origin and are so small that they do not afford adequate protection against occasional severe losses or against the inaccuracies of the rates thus far developed upon insufficient experience under workmen's compensation laws.

STATE FUNDS

Essentially different from the mutual association in organization, in principle the state fund is much the same. It is of European origin and has been introduced here for a variety of reasons. For one thing there was bitter antagonism under the common law between employer and employe. When compensation superseded

liability, labor quite naturally appealed to the state to leave capital out of the question altogether. Also, there was a considerable element among the employed who mistakenly believed that insurance companies were mainly responsible for the old conditions. A further reason for adopting state fund insurance may be discovered in the general tendency toward enlargement of governmental functions.

In the States of Washington, Wyoming, Nevada, Ohio, West Virginia and Oregon, the state fund is of the exclusive or quasi-exclusive type, in some of these states provision being made for self-insurance. Elsewhere it exists in competition with other carriers. In no case does the state pledge its credit to the maintenance of a solvent fund but it usually pays a part or all of the expenses and to this extent may be said to subsidize the enterprise. In California, where the fund is competitive, the legislature provided a cash guarantee which has not been called upon. In New York, the expenses of the fund for two years were paid out of the general treasury with no enactment for return of the monies so advanced. So far as is yet known all of the state funds are conducted on the fixed rate plan which contemplates premiums for capitalized losses. It is to be deplored that more is not disclosed of their transactions. The New York and California funds are managed by experienced insurance men and each has attracted a substantial volume of business. The California fund operates on the same basis of rates as its stock and mutual competitors. The other competitive funds have applied a discount to the private company rates ranging from 5 per cent to 15 per cent.

The largest of the state funds is found in Ohio. Charges have appeared in the commercial and insurance press that the fund is insolvent but as no critical investigation by qualified persons has been made it cannot be stated whether these reports are correct. The management claims it has ample reserves and a small surplus. The Washington fund appears from a recent investigation by the state auditor, to have been badly managed. In West Virginia a provision of law limiting the rate of assessment has seriously embarrassed the fund and a coal mine disaster has added further complications.

State funds derive their income from the premiums paid by employers and from the accretions of interest upon invested assets.

The management is conducted by political appointees who hold office for a term of years or at the pleasure of the appointive power. The policyholders have no voice in the management. The possibility of furnishing satisfactory low cost insurance without state aid is a problem yet unsolved by the state funds. It remains to be seen whether such an organization can be conducted with economy when other governmental enterprises have given rise to waste and inefficiency. Without the highest type of management, these institutions cannot hope to compete successfully against the private carriers. The state fund provides insurance only under the workmen's compensation act and is not authorized to embark upon other lines, such as liability insurance.

In considering arguments for and against state fund insurance, differentiation must be recognized as between those which are competitive and those which are monopolistic or non-competitive. Next to the security of the insurance, the main consideration is that of cost. If monopolistic, the fund is not driven to incur those expenses which competition necessitates in order that the fund may obtain a fair share of business. Otherwise such expenses must appear, at least in part, and a large potential advantage is thereby lost. A state subsidy enables the granting of lower rates but this merely shifts a part of the expense to the community at large and does not effect any real economy. There is small difference between a competitive state fund and a competitive mutual association. It may be presumed that both can attain the same degree of expertness in the conduct of their business. Both aim to reduce the initial cost by returning dividends to policyholders. The competitive effect of both is the same, viz., to regulate the actual cost of insurance by operating as a check against the proprietary companies.

Against the state fund principle the argument is made that, like any other business, insurance should be conducted by private management. It is held also that political considerations must tend to lower the efficiency of such organizations. The absence of direct management control by the policyholders is another objection. Some go so far as to hold that claimants may fare unjustly in order that the funds may make a favorable showing in point of cost. And, as might be expected, there is strong objection to any subvention of a state enterprise which is competing for business against privately managed companies. Some of these arguments are

clearly directed against the administrative features of state funds as laid down by law rather than against the general principle involved. It may be doubted whether any state fund now existing is ideally situated for a thorough-going test of the practicability of the idea.

SELF-INSURANCE

Self-insurance is really non-insurance. The employer simply assumes his own risk and obtains permission from the authorities to deal directly with his employe-claimants or their dependents. It is customary to require of self-insurers a bond or deposit of securities as a guarantee of performance. In addition their financial responsibility is considered. Under some compensation acts, such as that of New York, the benefit in case of death or of permanent total disability takes the form of a pension for life. It is open to serious question whether such benefits, involving the creation of a trust fund, should be left to commercial or industrial organizations for ultimate liquidation. In New York the State Industrial Commission formerly disposed of such cases by requiring payment in a lump sum, to a fund administered by the state, of the capitalized value of future payments but a recent decision by the appellate division of the supreme court has for the present nullified this requirement. The reasoning of the court is not convincing and it is probable that the legislature will be appealed to for the removal of the legal barrier. The administrative body recognizes the danger of exposing such monies to the risk of business failures of self-insurers and seeks to place them in safer hands for liquidation.

It has been argued that self-insurance will work to the disadvantage of labor. It is claimed employers will apply strict standards in engaging employes, that the physically inferior and those with dependent families will be discriminated against. Another claim is that self-insurance leads to coercion of employes who may present claims and to consequent evasion of the spirit, if not direct violation of the letter, of the compensation act. There seems to be no general indication that employers are taking advantage of such openings. Much more serious would seem to be the possibility of leaving substantial sums of compensation unpaid through their insolvency. Self-insurance as a means of securing payment of compensation is somewhat precarious excepting where

there is legal provision for immediate liquidation of amounts due through some trusteeship for administering deferred payments. It is not a complete substitute for regular insurance. The advantages are too largely on the side of the employer. It is no answer to say that many large employers, eligible to carry their own risk, are providing benefits in excess of those granted under workmen's compensation laws. They are in no wise precluded from continuing such plans while providing adequate security, by way of insurance, for the legal rights of employes.

RECIPROCAL OR INTER-INSURANCE

This form of insurance is operated through a so-called "exchange," the actual management being carried on by an attorney-in-fact who generally receives for his services and for expenses of administration a percentage of the premiums transacted. It somewhat resembles a mutual association but differs therefrom in important respects. The liability of subscribers is several and not joint and is generally limited to the amount of one annual premium. The attorney-in-fact enjoys broad powers, and in practice is the substitute for the elective management found in stock and mutual organizations. He has no financial responsibility for the liabilities of the exchange nor is the exchange subject to the close scrutiny of the public authorities as is the case with corporate insurance carriers. The subscribers have no joint assets nor the right to bond one another in any way. The success or failure of a reciprocal exchange depends almost wholly upon the personal ability and integrity of the attorney-in-fact.

In many states these organizations are not permitted to operate. Attempts have been made to secure official recognition through the filing of statements with the state insurance departments. No evidence is at hand to show that the exchanges desire anything approaching real supervision by those authorities.

However appropriate these organizations may be in the realm of fire insurance, where they originated, it is open to question whether they should be permitted to operate without greater restriction and under only nominal supervision by the state. The obligations of workmen's compensation serve to create deferred liabilities which partake of the nature of a trust fund. Such a fund

should be safeguarded to the fullest possible extent if the insurance carrier is to serve a useful purpose in such a field. Under present conditions this is not being done in the case of reciprocal exchanges. Their primary purpose appears to be to afford a remunerative activity for the promoter or attorney-in-fact. In short, so many objections can be raised against reciprocal exchanges as at present conducted, that one fails to see how they may find a place of usefulness in relation to a branch of insurance so peculiarly social in its character as that of workmen's compensation.

CONCLUSION

Through the maze of controversial claims made for the various forms of insurance of workmen's compensation, one sees clearly the single fact that no particular form has reached such a point of excellence that it stands out as superior. The various experiments now undergoing the test of practical experience afford the opportunity for future appraisal. All these forms of insurance must be judged upon the basis of security, cost and service. Self-insurance and inter-insurance seem fairly indictable and doubtless will be the first to pass away. The mutual principle, whether applied through private or through public management, bids fair to survive, even if only as a competitive force inhibiting monopoly by the joint-stock companies. There is no apparent reason why mutual insurance carriers worthy of public confidence and patronage should not develop. The effect of competition thus far indicates a gradual drift in the direction of the strongest and most efficiently managed stock and mutual companies. The largest question involved in the general problem is whether the insurance of workmen's compensation should be conducted competitively or as a monopoly.

Against competition the argument is a compelling one that lost motion results from the agency system which system unnecessarily absorbs a large proportion of the premium contribution. Further waste is introduced at the point where state supervision is invoked to promote equal competitive opportunity among the carriers. If a monopolistic system is created which form shall it assume? The probability is strong that society will not legislate in favor of a proprietary monopoly however efficient. The mutual association and the state fund will be the most likely candidates. Of the two the mutual association should have the greater appeal

because of its representative form of government, its consequent responsiveness to the will of its member-policyholders, and the divorcement from political interference which its scheme of organization renders possible.

Whatever may be the ultimate development of workmen's compensation insurance, it is reasonable to expect that society will insist upon the greatest security and the best service at the minimum cost to itself.

THE CALCULATION OF WORKMEN'S COMPENSATION PREMIUM RATES

By Claude Edward Scattergood,

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As there are various agencies for the administering of workmen's compensation insurance, likewise there are varying conceptions of rates. The mutual company desires to return as large a dividend to its assured as possible; so the excess of the rate above adequacy, though a matter of some concern, has not the same bearing upon its calculation as in the case of the stock company; and a similar observation may be made with regard to the state fund, which also desires to return a dividend. Rates now in use by stock companies have been calculated with the idea of simply carrying the business without underwriting loss. It thus becomes necessary to set the limits of this discussion of workmen's compensation insurance rates, and they will be considered in the light of adequacy alone, with no reference to a dividend return.

Insurance is the creation of a fund by means of contributions of comparatively small sums by the many to pay comparatively large amounts of indemnity to the few. This is insurance in its broadest conception, and the contrast between the many who escape disaster and the few to whom it comes is narrowed in the case of workmen's compensation, because a large number of accidents are constantly occurring which individually occasion small payments, but which are heavy in the aggregate. Serious accidents causing death or permanent disability with heavy payments of indemnity are not so frequent as the slight accidents just mentioned, and occur to comparatively few of the employers contributing to the fund, but they too are heavy in the aggregate. It is against these serious accidents that an insurance system most aptly applies.

In order to establish a fund, contributions are secured in the form of premiums; and premiums are calculated by taking a unit of exposure to risk, multiplying that unit by the rate, and then multiplying the product so obtained by the number of units of exposure.

The theoretical exposure is the number of men working during a year reduced to the equivalent of the number of men working a standard number of working days during a year at a standard number of hours per working day. The practical exposure, and the one used, is the pay-roll of those men for a year. The pay-roll basis approximates the theoretical basis, and clears away the difficulty of men not working a full year or working at part time during portions thereof. If we can approximate the yearly wage of a man working a whole year, the number of men working a whole year can be obtained by dividing the total yearly pay-roll by the average yearly wage of one man. If the pay roll is $1,000,000 and the average yearly wage $600, the equivalent number of men exposed to risk for a year is 1,000,000÷600=1,667.

The practical exposure being the yearly pay-roll of an employer, a practical unit of exposure must be adopted, and this is $100 of pay-roll. The ratio of the benefits paid injured workmen or their dependents to the number of one-hundred-dollar units of pay-roll is the basis of workmen's compensation rates, and is called the "pure premium." It is that rate per $100 of yearly pay-roll which would be charged after all corrections had been applied, were there no expenses in the administration of the business. These corrections will be considered later.

As accidents vary in frequency and seriousness among employers in different lines of business it would be unfair to determine "pure premiums" for all pay-rolls of all classifications of employers combined. A generally recognized standard list[1] of industrial classifications, about 1,500 in number, has been made, and rates for each of these classifications have been determined.

In order to determine as dependable pure premiums as possible it becomes necessary to secure the largest possible experience upon individual industrial classifications. It is unnecessary to enlarge upon or to illustrate the proposition that the larger the exposure to risk the more dependable the average pure premium per unit of exposure ($100 of pay-roll). The work of the National Workmen's Compensation Service Bureau, composed of about twenty stock companies administering workmen's compensation insurance, is probably the best example of the calculation of pure premiums by

[1] See *Standard Manual* of National Workmen's Compensation Service Bureau, 13 Park Row, New York City.

reason of its being in possession of more workmen's compensation statistics (and all on a uniform basis) than any other organization. The companies comprising the bureau have for several years been reporting their statistics. These have been reported by states, within states by years of issue of policies, within such issues by manual industrial classifications, and within manual classifications, among other variations, by kind of benefit paid to injured workmen. To these statistics reported by the companies to the bureau has been added such additional experience collected by the insurance departments and industrial accident boards of various states as was on a basis uniform with the bureau's experience, and it is a matter of congratulation that the methods of the state bodies and the bureau in the matter of statistics have in a number of instances been practically uniform. The bureau being in possession of this experience has combined it by states, within states by year of issue, within years of issue by manual industrial classification, etc., thus producing as extensive and dependable experience as can be found. In such combinations corrections have been made to take care of varying cost of the workmen's compensation laws of the different states, so that all may be upon a known level.

Experience in the United States is in general tabulated upon a policy year of issue basis. This means that all policies issued, say in 1915, are considered as belonging to the 1915 unit. A policy issued in January, 1915, will expire in January, 1916, one issued in June, 1915, will expire in June, 1916, etc., so that the last policy to expire in 1916 on 1915 issues will be one issued on December 31, 1915. The indemnity and medical payments covered by these policies, when made, are ticketed with a 1915 issue mark, so that whenever, even during a long period of years, a payment is made on an accident covered by a 1915 policy it will be referred to the 1915 issue. The same procedure is adopted with payments incurred but not yet made on such accidents, commonly known as outstanding medical or indemnity. The pay-rolls on these policies are ticketed in a similar manner.

Thus a basis is established for computing rates that will take care of all medical and indemnity payments incurred during the year for which a policy is issued, so that when an employer pays his premium on a policy he knows it will cover all indemnity and medical aid for all accidents occurring during the period the policy covers. His premium for that year is a part of his business expenses and he

knows that there will be no assessments for accidents occurring during that year to be paid for by him at a later date.

This year of issue basis also enables comparison of the experience of one year of issue with another, thus establishing whether the cost of compensation is rising or remaining level.

After all of this experience has been combined and reduced to a common level by means of appropriate factors, the medical and indemnity benefits, paid and outstanding for the individual manual classifications are divided by the number of $100 units in the payroll exposure for those classifications, thus producing a basic pure premium for each classification. Despite the fact that a great volume of experience is in the possession of the bureau, it may be that on certain classifications there is, and can be, but little experience. The experience on such classifications is carefully studied in its relationship to similar classifications having dependable experience, and pure premiums decided upon. The whole experience is then checked up to see that these judgment pure premiums are in all probability correct, and the basic pure premiums are released for rate-making purposes.

It now becomes necessary to determine whether outstanding benefits[2] have been adequately given in the experience and, if not, to establish a correction factor to take care of the inadequacy. This is done by checking up the experience on outstanding losses in the past. If it be found that a factor is necessary, such a factor is decided upon. It will be a decimal which we shall call k.

Because the compensation laws in the various states differ in their provisions, a series of values or differentials must be established which will measure the cost of all laws in comparison with a law adopted as a base. The base adopted is the original Massachusetts compensation law. In order to arrive at these law differentials a standard table of accidents distributed according to seriousness, constructed by Dr. I. M. Rubinow and published by the Spectator Company of New York City, is assumed to apply to every state and to every industrial classification. The cost of the law in each state for these accidents is worked out upon a basis of weeks' wages. The medical cost expressed in weeks' wages and determined from actual experience wherever possible is included. By dividing such cost for each state by the cost for the basis state a

[2] Benefits which it will be necessary to pay but which have not become due.

series of law differentials is obtained. Knowing the common level of the combined basis premiums as far as the law cost is concerned, the basis pure premium is multiplied by the ratio of the law cost for the state for which the rate is sought to the law cost in the combined experience. This will be a factor which we shall call *l*.

An objection to this method may be raised because different industries produce different distributions of accidents. This is quite true, but no statistics can be obtained which will determine these varying distributions, and as the factor is a ratio anyway, the effect of different distributions will be to produce different ratios which may not be much at variance with each other. Until a new table is compiled or distributions obtained for various industries it is felt that the above method is the best that can be used.

Another consideration is that of varying accident frequency between states.[3] Do accidents occur more frequently in one state than another, and if so, do all accidents, serious and non-serious, vary to the same degree? If so, a factor to correct for this should be applied, which we shall call *a*.

The study of compensation experience shows that as a compensation law grows older the cost of compensation increases. This has been ascribed to the education of the workmen as to the law and his right to benefits thereunder, and to an increasingly liberal construction of the law by the courts and industrial accident boards or commissions. So a factor must be applied to take care of this which we shall call *i*.

In issuing compensation policies variations in the manual rates, which are average rates, are allowed after an inspection of the plant of an employer or a study of the accident experience of his plant. These are known as schedule variations in rates, when inspections determine such variations, and experience variations when the determination is upon the accident record. Rates are increased or decreased upon individual plants upon these bases and it has been found in the past that the increases and decreases in rates did not offset each other in the combined experience so as to reproduce an average rate. This effect of Schedule and Experience rating must be taken care of by a factor which we shall call *s*.

[3] See *Synthesis of Rates for Workmen's Compensation*, p. 12. C. E. Scattergood. Published by the Fidelity & Casualty Company, 92 Liberty St., New York.

Some compensation laws may specifically cover industrial diseases and others have been construed to cover them. In such cases a factor for industrial disease must be introduced, which we shall call d.[4]

If the insurance carrier thinks that by reason of his service in administering the compensation fund he is entitled to a small profit, a loading for profit may be added, which we shall call p.

We now have:—

Basis Pure Premium	
Underestimate of Outstanding Benefit Factor	k
Law Cost Factor	l
Accident Frequency Factor	a
Increasing Cost Factor	i
Schedule and Experience Rating Factor	s
Industrial Disease Factor	d
Profit Factor (if used)	p

Applying these factors to the basic pure premiums we have as the pure cost, without expenses, for a given state:

$$(\text{Basic Pure Prem.})\,(1+k)\,(1+l)\,(1+a)\,(1+i)\,(1+s)\,(1+d)\,(1+p)$$

In general k, l, a, i, s, d, and p are fractional, so that the quantities in the parentheses are each greater than unity, but conditions may arise where a quantity in parentheses may be less than unity, as for instance, in the case of accident frequency.

So far we have considered the pure medical and indemnity cost of compensation, but this is only a part of a rate. Expenses must be incurred in administering this fund:—claim expenses, taxes, rent, stationery, etc.; acquisition of business expense, inspection expense, administration expense. The ratio of expense to rate will not be so high in a state which gives high compensation benefits as in a state where low benefits are given by the law. Therefore the percentage loading of the rate for expenses for a state with high benefits will be less than for one with low benefits. A series of loadings for expenses has been calculated with this feature in mind. Let eh represent the expense per cent of the rate in a state with high benefits and em the expense per cent in a state with low benefits, and er the loading for a state with medium benefits. If eh, em, or er, as the case may be, is the expense per cent, then $1-eh$, or $1-em$, or $1-er$ is the per cent of rate for compensation medical and indemnity benefits and this

[4] A consideration of this feature is too long for this article and the reader is referred to a pamphlet by the writer, *Synthesis of Rates for Workmen's Compensation*, p. 17, published by the Fidelity & Casualty Company of New York.

percentage is the pure cost per $100 of pay roll. Then the pure cost divided by $1-eh$, $1-em$, or $1-er$ will give the rate including expenses. Expressed in formula:—

For states with high benefits Rate=

$$\frac{(\text{Basic Pure Prem.})\ (1+k)\ (1+l)\ (1+a)\ (1+i)\ (1+s)\ (1+d)\ (1+p)}{1-eh}$$

For states with low benefits Rate= $\dfrac{\text{Numerator as above}}{1-em}$

For states with intermediate benefits Rate= $\dfrac{\text{Numerator as above}}{1-er}$

If for any reason it is expected that during the period for which rates are calculated conditions other than those already taken care of will arise which will tend to increase or decrease the cost as shown by the experience upon which the pure cost is calculated, a factor $(1+x)$ should be included in the numerator which will be greater or less than unity as the case may be. As a case in point, note increased number and severity of accidents due to abnormal industrial activity during the European war.

If it be argued that the expense factor is too large in any case, it should be noted that claim adjusting expenses could very well be referred to the numerator as a loading upon the Basic Pure Premium, because these may be considered as part of the pure cost. It should also be observed that a carrier has no control over the part of the loading charged for taxes and fees to the state. If these items be transferred to the numerator the expense loading is lessened.

In the study of workmen's compensation a clear cut recognition of the expenses in connection with the administration thereof should be made. Expenses should be analyzed according to adequate definitions and charged under a correct system of accounting. Otherwise how can one system of administration be compared with another; or how can an insurance company transacting multiple lines of business know that each line of business is bearing its proper expenses? There is this difference between the medical and indemnity disbursements of an insurance carrier and the expense disbursements: the medical and indemnity are paid to or in behalf of injured workmen under provisions of law and are easily recognized, while the expense payments include those which may be assigned to specific claims and also that great, hazy mass of overhead charges such as rent, stationery, light, postage, telephone, telegraph, express,

etc., which are not without considerable study and care assigned in proper portions where they belong.[5]

It has just been remarked that medical payments in behalf of injured workmen are easily recognized, but a situation presents itself where this classification of disbursement is not so readily discerned. Suppose an insurance carrier employs physicians to administer medical relief and while doing this to settle claims. Shall the expense of such agents be charged as a *medical disbursement* to the injured or as a *claim expense* to the company, or should such disbursement be divided in some proportion between medical to the injured and claim to the carrier. How can the administration of different insurance carriers be compared when three different companies may each classify this kind of disbursement in a different manner? This is just one case for purpose of illustration.

It is submitted that no comparison between insurance carriers can be made until their accounts are placed *on exactly the same basis* in every particular, and that everything be analytically accounted for and audited by the same disinterested parties.

One more item remains to be considered and as this is a flat charge upon pay-roll independent of rate, the calculation of the rate has been considered first. This is the catastrophe rate added to care for extraordinary losses. This rate does not vary with the pure premium and is regarded as an addition to the rate itself. Let us call it c, which represents an amount of c per $100 of pay-roll. We now have:—

Rate for high benefit state=

$$\frac{(\text{Basic Pure Prem.})(1+k)(1+l)(1+a)(1+i)(1+s)(1+d)(1+p)}{1-eh}+c$$

It may by this time be agreed that enduring in the race for carrying compensation insurance depends upon careful observation of the subject in all of its aspects and details. Appropriations for adequate scientific actuarial and statistical research work into this comprehensive and important subject are items in the budget of the insurance carrier the neglect of which is likely to be followed by disastrous consequences. The success of the insurer depends on accurate rates; and accurate rates can be computed only by trained scientists working with adequate modern equipment.

[5] See "Cost Accounting in Casualty Insurance," C. E. Scattergood. Published by the author in pamphlet and appearing in "Proceedings No. 5" of *Casualty Actuarial and Statistical Society of America.*

THE PRACTICE OF SCHEDULE AND EXPERIENCE RATING FOR WORKMEN'S COMPENSATION RISKS

By Leon S. Senior,

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In another article appearing elsewhere in this publication the reader has already been made familiar with the process involved in the determination of manual or basic rates for classifications or industrial groups to be covered by workmen's compensation insurance. It is well recognized, however, that the elaborate process which has resulted in providing basic rates for classes of risks is only the first step towards the ultimate object of ascertaining the correct rate for the individual risk.

The manual which has been established upon the basis of general and class experience contains average rates applicable to classes of risks but not appropriate to individual risks within the class. In the general process of rate-making the underwriters have adopted a number of classifications which cannot, with any degree of accuracy, describe every risk to be assigned to the classification. They were obliged to select pure premiums on a judgment basis in those cases where the class experience was insufficient to produce a reliable pure premium.

Practically every class for which a basic rate has been determined includes a number of risks that vary materially with respect to their physical and moral conditions. It is obvious that to charge the basic rate provided in the manual for each risk within a given classification does not promote the ends of justice. Equity demands that differentiation should be made between rates for employers who have modern plants and those for other employers in the same class whose workshops and equipment are of an inferior type. In order to justly discriminate in the rating of risks varying as to conditions with respect to safety, *merit rating* systems have been inaugurated with the object of providing an individual rate for each risk, such individual rate depending upon the physical and moral conditions in the plant. Two distinct systems are in use for that purpose, *schedule rating* and *experience rating*.

SCHEDULE RATING

"Schedule Rating" may be defined as a method of rating whereby it is intended to promote greater equity in the distribution of insurance cost by providing an individual rate for each risk based upon the physical character of the risk. The practice of rating each risk individually upon merit—establishing a rate higher than average for the inferior plant and a rate lower than average for the superior plant—is of important social value as an ecomomic force in *accident prevention* work, to which subject I intend to refer later.

For the purpose of enabling the individual rating of risks through measurement of risk hazard, the underwriters, with the aid of safety engineers, have prepared a rating system referred to in insurance parlance as a "schedule." This schedule makes a complete analysis of the average manufacturing plant and the normal items of hazard that contribute to industrial accidents. This analysis covers among other things the type of building construction, existing facilities for safety of employes against fire and panic hazard, the condition of floors, hoistways, stairs, elevated runways, platforms, boilers, pressure apparatus and steam engines. The schedule provides standard methods for safeguarding machinery and equipment, for the organization of safety committees and the improvement of sanitary and hygienic conditions. In the construction of the schedule the average plant has been taken as the basis and values in the form of rate or premium charges and credits established for the existence or absence of hazardous conditions. The rate values in the present schedule have been determined by interstate committees of underwriters and safety engineers upon the basis of a study of accidents sustained in European and American industries, with particular reference to the causes, severity and frequency of such accidents.

In the application of values, the underwriters have given recognition to three broad divisions of risk hazard: First: catastrophe hazard—All classifications are subject to the panic or catastrophe hazard, and all employes in any given risk are equally affected. The collapse of a building, the occurrence of a fire, the explosion of a boiler or the failure of a tank, are hazards which are not peculiar to any particular industry and not limited to any group of employes. The values for these hazards are, therefore, applied

in the form of flat charges and credits to the manual rate for all classifications, thereby distributing the cost equally among all industries. Second: Hazards peculiar to the industry and affecting all employes—Items relating to power transmission, working machines, proportion of machine operators, safety organization and hygienic conditions are regarded as hazards incidental to the industry, to be valued in proportion to the general rate for the classification. The values are, therefore, expressed in percentage form to the manual rate on the theory that the ultimate premium should be modified in a variable manner for each classification, in proportion to the loss expectancy indicated by the pure premium. Third: Hazards affecting a limited number of employes—Items relating to defective floors, stairways, unprotected elevated runways, unguarded flywheels, transmission gears, clutches, belts, shafting or set screws; absence of elevator safety devices and enclosures, unguarded grinding wheels, absence of safeguards for machinery and engines, present hazards which expose to risk only a part of the employes at a given plant at any given time. The values for these forms of hazard are expressed in flat amounts and applied *not to the rate* which affects the entire pay roll, but to the ultimate premium, estimated at manual rate on basis of average exposure. In the actual application of the schedule it is necessary to inspect each risk and prepare a report describing minutely each item subject to charge or credit.

Under competitive systems of insurance, where the state is charged with rate supervision, it was found necessary to establish state supervised rating organizations for the purpose of making inspections under a uniform schedule, its application to be free from discrimination and competitive influences. Rating organizations of this character have been established in the states of New York, Massachusetts, Pennsylvania and California. Under this system every insurance carrier is required to become a member of the rating organization and to submit to such organization each risk subject to schedule rating. The inspection report on each risk is valued in accordance with the provisions of the schedule and the resulting rate becomes applicable to the risk for a given period. The assured has the privilege of securing a copy of the inspection report and may, with the advice of the insurance carrier or through his own engineers, make such improvements in the plant as the inspection

may indicate and thereafter apply for a reinspection which will result in a lower rate. It is clear that the opportunity to secure reduced rates for improvements made upon expert advice has an important influence in stimulating the work of accident prevention, in reducing the accident rate and thereby lowering the cost of insurance.

The first rating schedule has been criticised mainly on the ground that it resulted in a general decrease of premiums. It has been argued that with a manual of rates based upon average experience and a schedule providing values on the basis of the average risk, the application of the system should result neither in an increase nor in a decrease in the total volume of premiums. It must be borne in mind, however, that the constant improvements which are being made by employers will necessarily result in reduced rates and, therefore, cause a depression in premiums which in theory is justified by reason of the belief that the improved conditions produce a lower accident rate.

The first schedule, known as the Universal Analytic Schedule, applied in the state of New York, produced a net decrease in premium rates as compared with manual rates, approximating 10 per cent in the first two years of its operation and approximating 20 per cent in the last year of its operation. This very substantial decrease was undoubtedly due to the fact that the authors of the schedule had provided credit values for average conditions where no credit should have been allowed and had failed to provide charge values for inferior conditions where such charge values were necessary.

The present Industrial Compensation Rating Schedule, which is now in operation in practically all compensation states, has been so framed as to more closely appraise risks upon the average basis and will undoubtedly produce more balanced results. It is urged frequently, and probably with good reason, that the best sort of a schedule is one that provides values based upon the inferior plant. This kind of a schedule would provide all credits and no charges; its application, however, would not be practical in connection with a system of basic rates established upon the general or average class experience.

The authors of the next rate manual will have to give serious consideration to the premium depression due to schedule rating and

make proper provision in the basic rates to offset this depression by means of a proper differential.

As has been mentioned already, one of the important results of schedule rating has been the stimulation of accident prevention work among manufacturers, who in the first instance have to pay the cost. While the insurance companies have been engaged for a long time under Employers' Liability laws in accident prevention work and have achieved considerable success in urging employers to correct unsafe conditions, it is believed that the most satisfactory work in that direction has been accomplished with the introduction of workmen's compensation laws and systems of schedule rating. Schedule rating offers a direct economic incentive to the employer to equip his plant in accordance with the provided standards, to introduce proper safeguards, to remove dangerous conditions that may lead to panic or catastrophe, to inaugurate systems of safety organization, and to educate the men as to the importance of care and safety through shop committees, bulletin boards and general meetings. The introduction of schedule rating has increased interest in the study of safety standards and has accelerated the movement for uniformity between insurance companies and state authorities. There is still existing a wide conflict between the laws of the various states and the requirements of insurance companies and rating organizations and it will undoubtedly take many years before all inconsistencies are entirely removed, if ever. But there is already in evidence a spirit of helpful coöperation, with a view to removing much of the inevitable confusion due to our territorial and political divisions. Both in Pennsylvania and in New York important steps have been taken to harmonize interpretations and requirements so as to remove as much of the conflict as is practicable and to place the legal requirements upon the same basis as the requirements of the insurance carriers.

A few words should be said about the future possibilities of schedule rating. Considerable attention is now being devoted by thoughtful students to the scientific development of rate-making for workmen's compensation insurance. Much of the philosophic discussion which has recently been published relates to the subject of schedule rating and the future progress of the practice.

The students' attention is particularly directed to recent papers presented before the Casualty Actuarial and Statistical Society of

America by Mr. Albert H. Mowbray and Dr. E. H. Downey.[1] These papers are of special value in pointing out ways and means by which the present system of schedule rating may be improved so as to harmonize the underwriters' purpose to provide equitable rate adjustment with effectiveness for accident prevention and to subject the schedule to statistical control so as to ultimately substitute mathematical values in place of judgment values for specific items of hazard.

There is also the very important question frequently raised by critics as to whether any single rating schedule can be applied universally to the great variety of manufacturing risks that come under observation. For example, underwriters are familiar with the difficulties encountered in the rating of metal and woodworking risks. The problem of providing sufficiently clear and definite classifications for metal workers has been under discussion, to the writer's personal knowledge, for a period of three years. While a special rating formula has been devised and applied to such risks in several compensation states, authorities are not agreed that the method of formula rating is the final solution. Similarly in the case of carpentry shops, planing mills and other woodworking plants the defects of risk classification have to be largely corrected through the process of schedule rating.

There is a strong probability that the authors of future systems of schedule rating will take into consideration the needs of special industries and the wisdom of establishing several special schedules, each intended for a particular group, and there is good reason to believe that a study of special hazards may even lead to the construction of schedules for public service and contracting risks, not included at present in the general scheme of schedule rating.

EXPERIENCE RATING

The second system of merit rating which I have described as *experience rating* has been and still is a subject of controversy and division of opinion. As a matter of fact, there are two distinct schools of underwriting, one favoring the use of individual experience as a method of characterizing the risk hazard and as a basis for individual rate-making; the other school frowning upon the system as utterly inapplicable to compensation or any other form of insurance.

[1] *Proceedings of Casualty Actuarial and Statistical Society of America*, Volume 3.

By experience rating we mean a system of merit rating whereby the loss experience for a given risk during a given period is subjected to detailed analysis and, as a result of appraisal, the class or basic rate is modified in accordance with experience of the individual risk. Those who favor experience rating base their argument on the following ground: The systems of schedule rating thus far developed are limited to manufacturing risks; and nothing constructive has yet been done in the direction of schedule rating contracting, public service and other miscellaneous risks. It is urged that such risks are also entitled to individual rating and that, in the absence of any system of schedule rating, the individual experience of the risk is the proper guide for modifying basic rates. Furthermore, the plea in favor of experience rating is extended to manufacturing risks on the theory that schedule rating is not by itself capable of measuring the individual risk hazard. It is pointed out that schedule rating can only take account of the physical conditions surrounding the plant and that such physical conditions are not in all cases an absolute guide. Coupled with schedule rating there must be, in the opinion of these advocates, a system of experience rating so that not only the physical but the moral conditions of the risk may be properly appraised. It is stated that in the underwriting experience there will be found perfect plants possessing all the ideal attributes which would justify a maximum rate reduction under the schedule but that notwithstanding, for reasons which are not visible to the inspector, the accident rate is abnormally high. On the other hand, underwriters encounter risks physically sub-standard but producing nevertheless a favorable accident rate. Illustrations of this character serve to emphasize the argument that the moral character of the risk must be measured by a system other than schedule rating. The individual experience of the risk, if spread over a sufficiently long period and over an adequate pay roll exposure, is likely to give a truer indication of the risk hazard in so far at least as its moral aspects are concerned, and by moral aspects is meant the attitude of the employer, his foremen and superintendents towards the safety and welfare of the workmen. In the manufacturing plant, the physical valuation of the risk, combined with the experience valuation, will, under this theory, produce a rate which will reflect the risk hazard from its physical as well as its moral standpoint. In contracting, public service and miscellaneous

risks, the experience rating system as herein indicated may be used under this theory for differentiating the risk from the class rate.

The antagonists of experience rating combat this argument by the statement that the loss experience on any given risk is due to imperfect physical conditions and to the element of chance, that the general experience has been used to determine the rate for the class and that the rate thus obtained is an average rate which should apply to all plants without distinction as to the particular experience sustained in a given plant. It is the fundamental purpose of insurance to cover the risk against the losses due to chance and it is, therefore, unsound in theory to penalize an employer whose experience as a result of chance is bad or to reward another employer whose experience as a result of chance is good. Furthermore, all experience rating plans which have so far come under observation have not been balanced schemes and have resulted in decreasing the total volume of premiums. There should be no increase or decrease in premiums due to experience rating for the reason that the manual provides a system of average rates and unless loadings were provided to replace the depression due to experience rating, inadequate rates would result from the application of the system. But it is questionable whether it is justifiable to load the rates for any probable premium depression due to experience rating. Any experience rating system must necessarily be limited to a class of risks that produce a sufficiently large pay roll or premium. Assuming that only 20 per cent of the total number of risks enjoy the benefits of experience rating, is it proper to increase the rates for all employers in order to give the benefit of experience rating to a restricted class? Experiments with experience rating have been conducted in several states and the results so far have not been entirely satisfactory, principally perhaps for the reason that no adequate plan of experience rating has as yet been devised.

In the first two years of operation under the New York Act a system of experience rating was introduced in that state. The operation of the system, however, resulted in its application to selected risks, namely, those that have enjoyed a good experience, and the result produced a depression in premiums which could not have been offset in any other direction. The first experience rating plan was thereupon abandoned and a new plan introduced, effective as of June 30, 1916. It took several months to prepare the details

of the plan and in its preparation the authors had to effect a compromise between a variety of views. In its present development the plan provides for the obligatory application of experience rating to all manufacturing risks that produce a minimum pay roll of $100,000 and an earned premium of $500 for a period of not less than two years and to contracting and miscellaneous risks with a minimum pay roll of $5,000 and an earned premium of $500 for the same period. The past experience of the risk is used as a guide for determining the rate on the current policy. The insurance carrier is required to submit an application to the rating bureau with a specific list of compensatable accidents sustained during the period on which the rating is based. Such accidents are valued upon the basis of an established table arranged according to the type of injury, and the values are derived from the provisions of the statute and general insurance experience. The appraisal of the medical cost is determined by a fixed charge for each notice of injury. The maximum debits and credits depend upon two factors—loss ratio of the risk and the size of the premium. Beginning with a maximum value of 5 per cent for a $500 premium, it extends to 20 per cent for a $5,000 premium. If the loss ratio is more than 40 per cent and less than 65 per cent no modification is made, such risks falling within a so-called neutral zone. In the application of the plan, the rating bureau acts as the medium for exchange of experience data among insurance carriers, and establishes the rate upon the data submitted under the certificate of the insurance carrier. The rate when published becomes available to all insurance carriers and applies to the risk for a given policy term. This plan may be regarded so far as in its experimental stage. The valuation of six hundred risks has produced a net credit of 4 per cent.

One of the important criticisms in connection with the plan is the method of loss valuation; for instance, the fairness of charges established in cases of accidents resulting in death or total permanent disability. It is pointed out that in such cases, the table provides values equal to 324 weeks of compensation for fatal cases and 624 weeks of compensation for total permanent disability cases. Such charges easily result in rates being advanced to the extent of 20 per cent maximum limit. It is argued that injuries resulting in so serious a manner are purely a matter of chance and that it is, therefore, improper to advance the employer's rate because of the

occurrence of a single serious accident, which has the effect of distorting the entire experience of an otherwise favorable risk. Another point of criticism has been against the provision of the plan which requires a charge of $12 for every notice of injury, as a medium of appraising the medical cost. The medical cost will differ with different employers and with different companies. Furthermore, some employers are very prompt in making reports of notices and others are quite negligent in this respect. The employer who is prompt in reporting notices of accidents apparently suffers under this scheme. The third point of criticism is the fact that under every plan so far advanced the results have produced a depression in premiums. This criticism requires very serious consideration for the reason that a loading on premium rates for this item is evidently improper.

Whatever merits the theory of experience rating may possess, it has not yet been possible to develop a plan that will produce rational results in its application. Until such plan has been developed, the critics are in a fair position to demand that individual rating of compensation risks should be entirely confined to the practice of schedule rating and that all efforts should be directed towards the highest development of schedule rating and its possible extension to a broader sphere than that provided under the present system. In the normal process of such development we may look forward to the construction of several schedules, each representing a distinct group of industrial activity.

COMPENSATION ADMINISTRATION AND ADJUSTMENTS

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The system of workmen's compensation which is now in operation in the greater number of the states of the United States is a radical departure both in principle and practice from its predecessor, the system of employer's liability, which was recognized and enforced by the common law. The difference in principle is that the compensation system is based on a recognition of the fact that industry should bear its proportional part of the financial burdens caused by the industrial accident, regardless of the fact that such an accident may have been caused in part by the negligence of the injured employe, unless that negligence is of such a degree that it can be shown that the injury was wilfully inflicted; while the common law system was based on the proposition that an injured employe must be able to show some legal fault on the part of his employer before any recovery would be allowed for an injury alleged to have been sustained by reason of the negligence of the employer. The difference in practice has its basis in the difference in the administration of the two systems. The common law system of employer's liability placed the employer and employe on a basis of theoretical legal and economic equality, as a result of which the only recourse which the employe had when the employer refused to recognize liability and compensate him for injuries alleged to have been sustained during the course of his employment was to bring the employer into court, establish his right to recover by judicial process, and then collect the judgment at the termination of the proceedings, if judgment was secured and if collection was possible. Inasmuch as the compensation system establishes the right of the employe to recover for his injuries, unless it can be shown that they are the result of his wilful negligence, it is an essential element of that system that this right of recovery should be secured and that the compensation laws should be so administered as to effect the purpose for which they were enacted. This is effected by requiring security for the payments, and by such a supervision

of the adjustments made under compensation laws that injured employes shall receive the full amount which the law allows to them with as much regularity and as little delay as possible.

THE INDICTMENT OF THE COMMON LAW SYSTEM

The particulars in the indictment against the common law system of employer's liability may be reduced to four general specifications. They consist of the uncertainty as to the basis of liability, the uncertainty as to the amount of the recovery when liability is established, the delay which is a necessary incident of legal procedure in enforcing a claim for damages, and the uncertainty as to the payment of a judgment when judgment has been recovered. These were the principal defects of the common law system which it was the object of the compensation system to obviate. All of these specifications were incidents of a system which had as its basis the element of legal fault on the part of a person against whom negligence was alleged. On this basis was imposed the theory of the equality of all litigants in the courts, which theory in its assumption that all litigants are able to stand the delays which are incident to litigation takes no notice of the economic difference in the condition of litigants, and thus practically closes the courts and denies redress to those who are unable to stand the delay and expense of legal procedure.

The compensation system substitutes for the uncertainty as to the basis of liability the requirement that the employer shall compensate for all accidental injuries which an employe may receive in the course of his employment, and which arise out of it, except in the comparatively rare cases in which it can be shown that the injuries were received by reason of the wilful or intentional negligence of the employe himself. It substitutes for the uncertainty as to the amount of recovery a specific amount which shall be paid during disability, or for a specific length of time. Any complete compensation system will substitute for the element of delay which is incident to the common law system of litigation a summary procedure for the determination and enforcement of rights under the compensation law, and it will substitute for the element of uncertainty as to the payment of a judgment a system of security for the payment of compensation which will assure that the injured will receive his indemnity just as specified by the law.

ADMINISTRATION OF THE COMMON LAW SYSTEM

In considering the administrative feature of the compensation system, and particularly that phase of compensation administration which deals with the adjustment of claims under the compensation laws, it is necessary by way of contrast to outline the procedure for the enforcement of a claim under the common law system and thus show the defects of that system, and then show how the compensation system has attempted to remedy those defects. The common law system is based, as has been noted, on the theoretical equality of employer and employe in the eye of the law, the result of which is that in legal procedure each has an equal right to contest to the limit any allegation that may be made by the other, and as employer's liability cases are simply a part of the general work of the courts and are entitled to no precedence over other litigation the injured employe who is a plaintiff must await his opportunity to be heard in turn with all other litigants.

If an employer recognizes his liability to respond in damages to an injured employe, or if for any reason an employer chooses to settle such a claim without litigation, and the parties can agree upon the amount that shall be paid, litigation is then unnecessary. Their agreement is subject to the legal requirement that it must be supported by a sufficient consideration, but wide latitude is given to the parties in determining the sufficiency of the consideration and the law will not disturb any settlement made with an injured employe unless it appears that the consideration is grossly inadequate, or that the settlement was effected by fraud or duress and so should not be permitted to stand. The common law principles as to the assessment of damages may be observed or they may be disregarded, for the law will not interfere with any settlement that is supported by a sufficient consideration and, although the consideration may seem small, still it may be regarded as sufficient in law to support the agreement.

The enforcement of an employer's liability claim under the common law by legal process necessitates recourse to the courts by means of a suit brought by the employe against the employer, alleging injuries received during the course of employment by reason of the negligence of the employer and demanding damages for those injuries. Either party is entitled to a jury to determine questions of fact, and as the allegation of negligence is usually a question of

fact it is incumbent upon the plaintiff to establish his case to the satisfaction of the jury by a preponderance of the evidence. The defendant is allowed to prove, if possible, that the injuries were received by reason of the negligence of the injured himself, or that it arose from dangers inherent in the occupation of the injured of which he was fully cognizant, or that they were received because of the negligence of a fellow-servant, unless these common law defenses have been modified or abrogated by some statutory provisions.

If the jury decides in favor of the right of the plaintiff to recover, it is their duty to assess the damages that shall be awarded, and the latitude which is given to a jury in this respect is one of the principal defects in the common law system. While it is the theory of the common law that the damages assessed shall be compensatory, as far as possible, there is in practice little to limit a jury in the exercise of their function of assessing damages but their own imagination, and the result is a great disparity in the amount of damages assessed in different cases.

Frequently there is considerable delay before an employer's liability case can be tried, and if a verdict is obtained by the plaintiff it may happen that there are some alleged errors in connection with the trial which allow the defendant to appeal. If such an appeal is taken, the delay is almost indefinite and the result uncertain, for it may result in a reversal and dismissal of the suit, or a reversal and an order for another trial. In the former event the right of action is lost, while in the latter the plaintiff is just where he started at the beginning of the litigation. If his verdict is sustained he is then at liberty to proceed to the collection of the judgment. This may be a difficult matter unless the defendant voluntarily pays the judgment, or has property which can be reached by attachment in satisfaction of it.

This brief summary shows that the element of delay is one of considerable consequence in the enforcement of a claim by legal process under the common law rules of employer's liability, for an injured employe may be practically deprived of his rights by reason of the delay which is incident to their enforcement. An incident of this element of delay is that of expense, for it seldom happens that a seriously injured workman has been able of himself to provide for such contingencies, hence the problem of sustenance during the progress of the litigation is both practical and pressing, and this

added to the expense which may be necessary to the litigation frequently causes the relinquishment of valuable rights for much less than an injured employe is legally entitled to receive.

PRINCIPLES OF COMPENSATION ADMINISTRATION

It is, therefore, an essential element of the compensation system that the payment of the benefits which the law provides shall be made as certain as possible, and that these payments shall reach the injured with promptness and regularity. The element of certainty of payment is secured in the well considered laws by a requirement of insurance of some sort, carried by the employer for the benefit of his employes for the security of the payment of the compensation obligations. The element of promptness and regularity of payment is accomplished by vesting the administration of the compensation law in a single official or an official body whose sole duty it is to see that the law is properly administered, and this supervision over the adjustment of compensation claims is one of the vital features of the general subject of compensation administration. Some of the compensation laws which have been passed in the United States cannot be considered complete, even according to present standards of compensation, because of the fact that they fail to require security for the payment of compensation, and also fail to provide any special administrative machinery to supervise their execution. Such laws are necessarily defective in principle even though they may be satisfactory in practice.

The principle of special administrative authorities for particular classes of laws had already been recognized and developed in the United States long before the adoption of the compensation system, so in applying the principle of special administration to compensation legislation, in those states in which this principle was adopted, the legislators were not establishing any new principle but were following precedents already established. The basis of this form of administration is the fact that because of the amount of detail that may be involved in the administration of some laws, and because of the specialized knowledge that their administration may require, enforcement may be ineffective if left to the general executive authorities; or to the parties who may be interested in their enforcement, with recourse to the courts a necessity in cases of disagreement as to the construction and application of the laws.

It is, therefore, to the benefit of all who may be interested that some such laws shall have administrative systems of their own. The administration of any law necessarily involves a combination of executive and judicial functions, for decisions as to the meaning of statutory provisions are necessary at every turn and, while it is the particular function of the judicial department of government to render the authoritative and final decisions as to the construction of all laws, it is often necessary, in the absence of such decisions, that rulings shall be made as to the practical application of laws which shall be made summarily and shall have the sanction of authority, and this can be accomplished in no better way than by providing special administrative machinery for the particular classes of laws which may prove ineffective if appeal to the courts is the only method of securing their enforcement.

This principle of administration had been developed particularly in connection with the regulation of the relations between public service corporations and individuals, and commissions of some sort as intermediaries between the individual and the courts in dealing with these corporations were already common when the compensation laws were enacted. The principle had also been applied to the administration of that class of labor legislation which relates to the safety and health of employes and the regulation of work of women and children by inspection of work places in order to see that the laws were enforced, but no such application of it had ever been made to the laws which related to the liability of the employer for occupational injuries sustained by the employe, so that the creation of commissions to supervise and enforce workmen's compensation laws was an extension of the principle, but this extension seemed justifiable in view of the purpose of the laws.

The European precedents were of little help in determining upon the systems of administration in the United States. The systems in Europe which were studied more than any others in connection with the formulation of our systems were the English system and the German system, and although our systems contain elements taken from both of those systems it may be said that both in form and substance our laws are based more upon the English than upon the German precedent. The administrative features, however, where special administration has been provided, partake more of the German system, for the English law is to a certain

extent defective according to our standards of compensation because of its lack of administrative features, the administration being based upon agreement of the parties or arbitration, with resort to the courts when agreement or arbitration fails. The German system is an elaborate social insurance system, of which the supervision of its administration by the state is an essential element.

As to their administrative features the compensation laws in the United States may be divided into two general classes, those which have not provided for any machinery aside from court procedure for their administration and those which have provided some such machinery. It may be said to the credit of those laws which leave the matter of administration with the courts that they usually provide that the procedure shall be summary, and not subject to the delays and technicalities which are too often incident to judicial procedure. This elimination of technicalities relates both to the form of procedure and the legal rules of evidence, for it is the spirit of any procedure that may be necessary in compensation administration that it shall be free from the technicalities which have developed in legal procedure and in the application of the common law rules of evidence. The states which rely upon court procedure for the administration of compensation laws are in the minority, for the majority of the laws have provided for a special form of administration.

The form varies in detail in the different states which have special administration. It may be vested in a single official or in an official body but, regardless of differences in form, the principle is uniform, for the object is to secure to the claimant a summary decision as to his right to receive compensation, with the procedure as simple and informal as possible; and, if the right is established, to see that the compensation is paid as ordered. In order that the constitutional rights of the parties and the constitutional function of the courts may be preserved, it is provided that appeals may be taken to the courts from the decision of the administrative official or body on questions of law, but that findings of fact shall be binding on the parties.

It may be well to state at this point that in the practical administration of compensation laws, particularly in those states which have a special administrative system, the actual parties in interest are usually the claimant and the insurance carrier. This is because

of the requirement in the greater number of the laws that the compensation obligation shall be insured and the provision that the insurer succeeds to all of the obligations of the employer. So in event of an accident the employer reports the matter to his insurer, and it is then the duty of the insurer to see that all of the provisions of the law are carried into execution. This practical condition simply substitutes the insurer for the employer, notwithstanding the fact that the proceedings may nominally be against the employer instead of against the insurer.

ADMINISTRATION IN DIFFERENT STATES

In order that the procedure of adjustment may be shown, and also that some of the differences in detail may be illustrated, the systems adopted in several of the different states will be outlined as representative of the systems in those states which have provided for a special form of administration. The states selected are Massachusetts, Connecticut, New York and Pennsylvania, the order given being the order in which the legislation was passed in those states. Massachusetts is selected because of the excellence in principle and in practice of the administration of its law; Connecticut, because, although the administration provided may be defective in theory and in principle, in the summary way in which its law is administered it presents an example of excellence that may well be considered; New York because of the importance of the state, and also because of the fact that its law is of limited application and so presents problems of administration which are not present when the law is of general application; and Pennsylvania because of the fact that it is the most recent of the large states to adopt the compensation principle, and its system of administration is worthy of consideration.

The Massachusetts act provides for the appointment of an Industrial Accident Board consisting of five members. When, after an injury, the employer and the employe reach an agreement as to compensation, a memorandum of this agreement is to be filed with the board, and, if the board approves this agreement as in conformity with the terms of the act, it will be enforced. In case of disagreement between the parties an arbitration is necessary, and this arbitration is effected through a committee of three, one each being selected by the employer and employe and the third, who shall

be chairman, being a member of the board. This committee of arbitration investigates and makes its findings, and files its decision with the board. Either party may file a claim for review with the board within seven days after the decision of the committee is rendered. If this claim is filed the board reviews the findings, and it may affirm them, revise them, or refer the matter back to the committee for further consideration. If no claim for review is filed, the decision of the committee stands as the decision of the board. An appeal may be taken to the courts from the decision of the board, or from the findings of the committee if no claim for review has been filed, but this appeal must be upon questions of law, for the findings of the committee or of the board as to questions of fact are final.

The result of this procedure as to the committee of arbitration is in effect the same as it would be if a member of the board acted as sole arbitrator, for in cases of dispute between the other members it is the vote of the member of the board that decides, but the fact that each party is represented on the committee tends to preserve the rights of the parties, and the effect may be that the issue has greater consideration than it would have if the member of the board had nothing to assist him in reaching his decision but the presentation of the case by the parties or their attorneys. The procedure is summary, and there is no cause for delay, except in those cases where it is deemed necessary to have the court rule upon questions of law, and groundless appeals are penalized by allowing the court to assess the whole of the cost of the proceedings on the party who has proceeded without reasonable ground.

The Connecticut act has provided for a system of administration which for practical excellence, particularly in a state of limited area, cannot be surpassed. Five compensation commissioners are appointed, one for each Congressional District. The Board of Commissioners act together for the purpose of adopting rules of procedure and the preparation of reports, but as to the administration of the law each commissioner is supreme in his own jurisdiction, the Congressional District in and for which he was appointed, and the board does not, as a matter of law, take concerted action in any compensation cases. Any commissioner may designate another commissioner to act for him when it is necessary, such as in cases of absence from his district, or in cases of incapacity or disqualification. When an employer and employe fail to reach an

agreement as to compensation the commissioner orders a hearing, with not less than ten days' notice as to time and place to each party. Appeal from the decision of the commissioner may be taken by either party to the Superior Court at any time within ten days after the entry of the findings, and such appeals to the Superior Court are privileged over other actions so that disposition may be summary.

The Connecticut system may be regarded as defective in principle because it provides for no review or confirmation of the decision of a single commissioner by the full board. Such a provision would tend to uniformity in rulings on the part of the commissioners, but this objection, in view of the excellence of the administration in Connecticut, is largely theoretical rather than practical in its nature. In a larger state, particularly one larger in area, the system might not work so well, but in a small state like Connecticut, with the commissioners in close proximity to each other, engaged in a common purpose, and in easy and frequent communication, this system works very well.

The New York act provides for the appointment of a State Workmen's Compensation Commission consisting of five members. The work of the commission is to a certain extent complicated by the fact that the New York act is one of limited application, and further by the fact that the commission has charge of the administration of the State Insurance Fund. The commission is authorized to appoint deputy commissioners. It is incumbent on the commission to determine disputes between employers and employes as to the payment of compensation, and any hearing which it is necessary for the commission to hold may be before either a commissioner or a deputy. The commission also has authority to require the parties to appear before an arbitration committee. The decision of a commissioner or deputy, when approved by the commission, is the decision of the commission. Appeals may be taken on questions of law, or the commission may certify questions of law to the court for decision, but the finding of the commission as to facts is final.

The provisions regarding the administration of the New York law were changed to a certain extent in 1915, in that the State Workmen's Compensation Commission established by the compensation law was abolished, and the functions of that commission were transferred to the State Industrial Commission, which was

established by the law abolishing the Workmen's Compensation Commission. This change was more in form than in substance, for the Industrial Commission was vested with all the powers, duties, obligations and liabilities of the Workmen's Compensation Commission and simply continued with the administration of the compensation law as its predecessor had been administering it. The Industrial Commission was established to take general charge of the administration of the Department of Labor of the State of New York, and the administration of the compensation law was only one of its functions. This change in New York may be regarded as indicative of a tendency to consolidate the administration of all of the laws relating to labor into one body, and it is reasonable to expect that such action may be taken in other states.

The Pennsylvania act provides for the appointment of a Workmen's Compensation Board of three members, which board shall supervise and direct the work of the Bureau of Workmen's Compensation, and it also provides that the Commissioner of Labor and Industry shall appoint as many referees as may be necessary, not exceeding ten in number. When an employer and employe fail to agree as to compensation, the employe may submit the matter to the board and, when the matter is submitted to the board, the bureau shall in turn assign it to a referee for an investigation and report. Appeal may be taken to the board from the findings of the referee, but the findings of fact by the referee are final unless the board allows an appeal, and the board's findings of fact are final in all cases. Appeal may be taken to the court from the board's findings on questions of law.

The laws give to the different administrative authorities the power to summon witnesses and compel the production of any written evidence that may be necessary. It is not usual to vest in these bodies the authority to issue execution to carry out a decree, but the equivalent of this power is provided by authorizing the courts to issue execution on any decree which has become final so, with the full power of the courts behind any such decree, the lack of this power on the part of an administrative body is no essential defect in the system.

As this system of special administration is recognized as a necessity for the practical and efficient administration of compensation laws, this chapter, in dealing with the adjustment of compen-

sation claims will assume that the administration of the law is vested in some special administrative body, and this body will be referred to, as a matter of convenience, as the "commission."

APPLICATION OF THE COMPENSATION LAW

The first question of dispute which can be raised in a state in which the compensation law is limited in its application is as to whether or not a particular occupation is within those to which the law applies. A number of the states have enacted laws which apply only to certain occupations, those occupations being named either by classes or by specification of particular occupations, so that in those states the common law system of employer's liability still exists as to those occupations which do not come within the compensation law. The principle on which this distinction in occupations is based is that some are essentially hazardous in their nature while others are non-hazardous and, as to those which are non-hazardous, there is no necessity for an abrogation of the common law system. It may happen, therefore, that in some cases there is a dispute between an employer and an injured employe as to the application of the compensation law to the occupation in connection with which the injury was sustained and, if this issue is present, the commission must, in the first instance, determine whether or not the law applies.

This issue as to the application of the law may arise to a very limited extent in those states in which the laws are of general application, for practically all of the laws contain some exceptions of occupations which do not come within the law. The exceptions which are practically universal are those of domestic and agricultural service, but in addition to these there may be other exceptions which have been inserted because of local considerations, and if any issue as to the application of one of these laws arises it is necessary for the commission to make a decision as to coverage.

MEANING OF WORD "ACCIDENT"

If no issue as to the application of the law is present, the next question which may arise for determination is that as to whether or not the occurrence which resulted in the disability is an "accident" within the meaning of the word as used in the compensation law. No attempt will be made here to frame any definition of the word

as it is used in this connection. In the great majority of cases the circumstances of the occurrence are so plain that there is no doubt that an "accident" has happened and is responsible for the disability. But in some cases disability may arise when it is claimed that an alleged accident is responsible for it, and that, therefore, indemnity should be paid under the law, when it seems that there is a reasonable doubt as to whether the disability can be traced to any "accident" as this word is used and understood within the meaning of the compensation law. The most frequent instances of cases of this nature are those in which it appears that some disease is responsible for the disability, but it is claimed that the disease had its origin in some alleged accident. The general rule in such cases is that, if the disease is a result of the accidental injury, it should be regarded as a compensation case for the disability caused by the disease or for death, if death results from it, but that if the disease arose independent of any such injury it is not within the provisions of the compensation law. This rule goes to the extent of holding that any disease which arises during the disability caused by accidental injury and which may be directly traced to the injury is covered for compensation. Any issue of this nature is a medical issue, but it is essentially a question of fact and so is on the commission for determination.

A few illustrations will show the nature of the cases of this kind which are presented for decision, and some of the decisions of the Industrial Accident Board of Massachusetts will be used as illustrative. The Massachusetts decisions are not cited in any attempt to emphasize the excellence of the administration in that state, but because of their availability. The references in this paragraph are to the Massachusetts Workmen's Compensation Reports. In *Twoomey's case*, 2 Mass. 540, an employe had been injured by being kicked by a horse and was incapacitated about a month. After resuming his regular occupation he became ill of an ulcer of the stomach and died. His widow claimed compensation, alleging that this ulcer arose from an injury sustained in his employment. A committee of arbitration held that the medical evidence did not substantiate this allegation, and the decision was accepted without appeal. In *Lynch's case*, 2 Mass. 591, an employe was injured in May and in September died from acute dilatation of the heart caused by uremic poisoning. It was held that the widow was not

entitled to compensation, for no causal connection was shown between the injury and the disease which caused death. In *Merritt's case*, 2 Mass. 635, an employe had received a severe strain from which paralysis resulted, and about a year subsequent to the injury contracted pneumonia from which he died. It appeared that because of his exhausted vitality and reduced power of resistance he was unable to resist the attack of pneumonia, and as his weakened condition was due to the disability caused by the accident it was held by the committee of arbitration that his widow was entitled to compensation. The finding of the committee was approved by the Industrial Accident Board.

RELATION OF DISEASE TO COMPENSATION

The court in Massachusetts has gone further than that of any other state in extending the protection of the compensation law to diseases which may arise in connection with employment, and this attitude of the Massachusetts court is justified by a distinction which it indicates between the language used in the Massachusetts act and that used in the English act and the acts in many of the other states. The Massachusetts act relates to "personal injury" arising out of and in the course of employment, while the English act and the other acts generally relate to "personal injury by accident" sustained under similar circumstances. The term "personal injury" used in a broad sense may include disability caused by disease which may be directly attributed to employment as well as disability caused by accident, and the logical conclusion which the Massachusetts court has drawn from the failure of the legislature to restrict the operation of the act to personal injury by accident is that it was the legislative intention to have the act apply to sickness which might arise from employment as well as to the disability which might be caused by an accidental injury. This particular phase of the application of the Massachusetts act is discussed by the Supreme Judicial Court in *Madden's case*, 222 Mass. 487. In that case the claimant, an employe in a carpet mill, had strained herself by pulling carpets over a table and the strain accelerated a weakened condition of the heart and caused incapacity for work. It was held that when there was a direct causal connection between the employment and the disease an award of compensation could be made. The substantial question is whether the diseased condi-

tion independent of any of the hazards of employment was the cause of disability, or whether the employment was a proximate contributory cause; in the former case no award could be made, but in the latter it ought to be made.

One of the most troublesome questions which has arisen in connection with the administration of compensation claims is that of the treatment of claims for disability caused by hernia. This is because of the fact that the best medical testimony is to the effect that hernia is the result of a preëxisting bodily condition, and partakes more of the nature of a disease than that of an accident, and from the nature of the case is never traumatic in its origin, but the rupture which is the consummation of the hernia usually follows some strain, and when this strain occurs in connection with employment the natural effect is to attribute the hernia to an occupational injury and demand compensation. The tendency on the part of the commissions is to connect the hernia with the alleged accident, if there is any basis for such a decision, and award compensation. Hernia claims often constitute a class by themselves, and they are sometimes made the subject of a special rule which shall apply to that class, such as the allowance of a regular operation fee and compensation for a definite period in all hernia cases. The Kentucky act, which is the most recent compensation law to become operative, has made special provisions for hernia claims, when it can be shown that hernia results from an injury, by specifying surgical benefits when an operation is performed up to two hundred dollars, and compensation for twenty-six weeks.

The consideration of the matter of the coverage of disease under compensation acts involves two phases of the subject, one of which, that of diseases which are general in their nature and are not peculiar to any particular occupations, has just been noted. The other phase is that of diseases which arise from particular occupations, usually from contact with substances used in connection with those occupations, and are termed "occupational diseases." Under the rule adopted in Massachusetts that the term "personal injury" as used in the act is broad enough to cover injury from disease as well as that caused by accident, the Supreme Judicial Court has held that occupational diseases are covered for compensation, but the general rule in the other states, even where the acts do not particularly specify that they relate to "personal

injury by accident," is that occupational diseases do not come in the scope of personal injuries within the meaning of the compensation law, and compensation is denied for disability caused by these diseases.

WAITING PERIOD

No compensation is payable under any of the acts unless the disability extends beyond a certain period, the "waiting period," so called. Various considerations are responsible for the insertion of this provision in the compensation laws. One reason is the attempt to discourage claims for minor injuries and to encourage the injured to return to work as soon as possible in cases where the disability does not extend beyond the waiting period; another reason is that under compensation the injured must bear some portion of the financial loss caused by industrial accidents, and the loss from disability during the waiting period is a part of the loss which he must stand. The waiting period has usually been fixed at not over two weeks, and some of the laws have provided that in cases where the disability extends beyond a certain period, say six or eight weeks, the waiting period shall be eliminated and compensation paid from the beginning of the disability. The tendency is, in connection with amendments to the compensation laws, to reduce the length of the waiting period, so that in some states where it was originally two weeks it is now ten days, and it has even been reduced to one week.

STATUTORY MEDICAL AID

While no compensation is payable as a general rule during the waiting period, the provision is almost universal that during this period, or during a period which may not necessarily correspond with the waiting period, for it is usually longer than this period, the injured shall be furnished the necessary medical and surgical attention, and all of the incidents of that attention, such as medicines, hospital services, etc. This obligation is usually limited both as to the time within which the medical or surgical aid shall be rendered and as to the amount of expense which shall be incurred for such attention, and the administration of this provision of the law is one of the first administrative difficulties encountered after it has been determined that an accident is within the provisions of the compensation law.

If the necessary treatment can be rendered within the time specified by the law and at an expense not exceeding the limitation of the law, no complications arise, but if treatment is necessary beyond the specified period, or if the necessary expense is in excess of the limitation, or if both of these elements concur as they frequently do, the case involves its complications. The authority is usually given to the commission to regulate the charges for these services, and if the excess in amount is the only element the commission may, by using this authority, bring the charges within the limit. If this is impractical the only action that can be taken, in justice to all parties, is to prorate the limit among all of the creditors, paying each one a proportional share. If the employer or the insurance company carrying the risk does not pay the balance the only way in which payment can be effected is by pressing a claim against the injured, and if he is unable to pay the creditor loses the balance.

In view of this practical consideration, the tendency is to remove the arbitrary limits both as to the time within which this treatment is to be rendered and as to the amount of expense for such treatment. The requirement of the Connecticut law passed in 1913 was that these services be furnished for thirty days immediately following the injury without any limitation as to the amount of the expense to be incurred; the legislature of 1915 removed this limitation as to time so that the requirement is now unlimited both as to time and expense. The Massachusetts law passed in 1911 provided for reasonable medical and hospital service for two weeks after the injury without any limitation as to expense. This period was manifestly inadequate and inequitable in serious cases, and the law was amended in 1914 so as to allow the Industrial Accident Board in its discretion to extend the time in unusual cases. In commenting on this general provision it may be said that the method adopted in Massachusetts has advantages over the Connecticut method, for it is a practical necessity that strict supervision be exercised in the administration of this provision of the law, and if the commission has an opportunity to pass upon the necessity for such further treatment before it is rendered, and authorize it if the circumstances seem to warrant such authorization, the power of supervision is manifestly much more effective than it can be in cases where physicians or surgeons are at liberty to render such

services as they think necessary subject to a review of the charges by the commission after the services have been rendered.

THE MEDICAL ELEMENT IN COMPENSATION

The importance of the medical element in compensation administration cannot be overestimated. One phase of this element, that of medical and surgical attention following an injury, has just been mentioned. It is the purpose of this provision in the laws to minimize the effects of an injury as much as possible and to facilitate recovery in all cases where recovery is possible. The power given to the commission to regulate the charges of physicans and surgeons for these services is regarded as essential for, inasmuch as the compensation system imposes extra financial burdens on the employer, it is one of the objects of that system to reduce all compensation expenses to a minimum. The attempt is made, therefore, to keep the charges for medical or surgical attention within the scale which would be applied if the injured, instead of the employer or an insurance company, were paying them, and this is why the authority to regulate these charges is vested in the commission. It is sometimes specified in the law that the charges shall be the same as they would be if the injured were paying them himself, but if there is no such provision it is assumed that the commission will keep the charges within this limit.

Another important phase of the medical element in compensation is that of the assistance which it is necessary for the commission to have from the medical profession. In decisions as to whether or not disability has terminated, decisions as to the length of disability, and, in short, in all cases where the question in dispute is essentially a medical question, it is necessary that the commission have the best medical testimony available for its assistance. All questions of this nature are questions of fact and the decision of the commission is final. In order that the commission may have the necessary power to enforce its authority over disputed questions as to the length of disability, and other medical questions, the different laws provide that the injured shall from time to time submit himself for examination by an impartial physician, as directed by the commission, and the report of the physician is the basis upon which the commission must, as a practical proposition, rely in making its decision. If the injured refuses or obstructs such an

examination his compensation may be suspended until he submits to the examination. The impartial physician is, therefore, a very important factor in the proper administration of the compensation laws for, when the opinion of the physician representing the injured differs from that of the physician who represents the employer, the opinion of a physician who represents neither party in interest must necessarily possess great weight.

DISABILITY PAYMENTS

The disability for which compensation is payable in non-fatal cases is of two kinds, total and partial, and each kind in turn consists of two elements. Total disability may be either permanent or temporary, and the same is true of partial disability. In cases of total disability the compensation is proportioned to the average weekly wages of the injured, ranging from one-half to two-thirds in the different states and usually subject to a maximum and a minimum, during total disability, and subject also to any limitations as to time and amount that may be specified in the law. This total disability may be either permanent or temporary, and if it is temporary the payments for total disability cease when the total disability ceases. The laws frequently specify some particularly serious injuries which shall constitute total permanent disability, and unless the injury comes within one of the specifications the question as to whether or not the disability is total and permanent is one for the commission to determine, aided by the necessary medical testimony.

The payments for partial disability are based upon the loss in earning power occasioned by the injury, the proportion ranging the same as that for total disability. For instance, a workman earning fifteen dollars a week is injured and after recovery he is obliged to go back to work for ten dollars a week because of some disability caused by his injury. His compensation for this disability would be the proportion of this loss in earning power of five dollars a week specified by the law during the continuance of the partial disability, subject to any limits as to time and amount fixed in the law. It is frequently specified in the laws that certain injuries which may involve permanent partial disability shall be compensated by making the payments allowed for total disability for a certain time, these payments to be in lieu of all other compensation. This provision refers to certain dismemberments which do not necessa-

rily cause permanent total disability for all employments, even though they may destroy the ability of the injured for further work at the employment in which he was working at the time of the injury. The determination of the allowance which shall be made in cases of partial disability rests with the commission in event of disagreement between employer and employe, and any agreement made by the parties as to payments in these cases must, as a general rule, have the approval of the commission before it can become effective.

PAYMENTS IN FATAL CASES

The payments in cases where death results from the injury depend on whether or not any dependents survive, and in the event of surviving dependents the payments depend further upon the nature of the dependency. In cases where there are no dependents, the payment is usually limited to the expenses of the last sickness and funeral expenses, subject to a specified limit. In case of total dependents surviving, the payments usually correspond to what would have been paid to the injured during his total disability had he survived. In cases of partial dependency, the payments are a proportional part of those for total dependency, the amount being determined by the degree of the dependency. The laws usually specify certain relationships which when shown constitute total dependency; in all other cases where dependency is alleged, either total or partial, the question is one of fact for determination by the commission.

In dealing with fatal cases, therefore, it will be seen that the compensation principle departs from the common law principle, or, speaking with greater accuracy, from the principle established by the statutes giving a right of action for death by wrongful act, which by usage came to be regarded as a part of the common law system. The statutes generally allowed that action to the personal representatives of the deceased in cases where no dependents survived, but the compensation system recognizes only the right of dependents so, if no dependents survive, nothing is recoverable under the compensation law. This right may in turn be lost if for any reason dependency ceases, as may happen in case of the remarriage of a widow, or the period of dependency may be terminated by law, as in case of a minor reaching a certain age at which

the law presumes that he can support himself, unless in fact further dependency is shown. The right to receive compensation is personal to the dependent and is in no sense a vested interest, so the dependent has nothing which he can pass on or which his personal representatives are entitled to receive in event of his death.

CONSERVATION OF COMPENSATION PAYMENTS

It is the object of the compensation system that the payments to the injured, or to the dependents in fatal cases, shall be made in substantially the same manner as wage payments, at regular intervals and in regular amounts. The party who makes the payments, therefore, either the employer or his insurer, is required to see that the payments are made as specified by law or by the commission, and that they reach the person or persons for whom they are intended. In order that the beneficiaries may have the full benefit of the payments it is usually provided in the statutes that any assignment of the right to compensation shall be invalid, and also that any payments that may be due shall be exempt from attachment while in the possession of the employer or of the insurance company.

It is intended to keep the procedure to determine and enforce the right to compensation as simple and informal as possible, and in view of this simplicity in procedure there is nothing to prevent a claimant from acting as his own attorney in compensation proceedings, particularly in those before the commission; if an appeal is taken to the courts it may be necessary for the claimant to be represented by an attorney. The aim is, however, to keep all litigation down to a minimum, and to keep the expenses of any litigation that is necessary as low as possible. As the authority to regulate the fees of physicians is given to the commission, in the interest of the employer, so in the interest of the employe the authority to regulate the fees of any attorney that may appear for the claimant is usually given to the commission.

It was one of the practical defects of the common law system that, when liability was recognized and a settlement was made, or when for any reason a settlement was made without suit, or when a judgment was collected after recovery by suit, the amount which the injured received was paid to him in one sum. The effect of this practice was that the money received was frequently dissipated,

and the injured was then no better off than he had been before the recovery of his damages. The provisions of the compensation laws regarding the frequent and regular payment of indemnity were adopted in order to overcome this defect in the operation of the common law system, and this practice in compensation administration negatives the idea that the benefits should be paid to the injured in a single amount, or in several amounts each one of which would be much larger than the small periodical payments. The law, however, recognizes the fact that in some cases there are reasons why a lump sum settlement to be paid in one amount, or a settlement which shall be made in several larger amounts rather than in numerous smaller amounts, may be advisable, and in recognition of this fact the different laws have provided for commutation of the future payments under certain circumstances. In practice this provision of the law is very closely guarded by the administrative authorities, for if such settlements were generally allowed that practice might almost nullify one of the fundamental principles of the compensation system, that of the conservation of compensation payments. As a general rule a petition for the commutation of the future payments into one amount or into several amounts may be made to the commission by either the employer or the employe, but such a petition will not be granted unless reasonable grounds are shown for its advisability. The basis on which a commutation is usually made is that of the present value of the future payments at the time of the commutation, discounted at a given rate of interest. In cases where the length of disability is practically certain the commutation is a simple matter; in cases where the length and nature of the disability is uncertain the commutation must be made on the basis of an estimate.

INSURANCE OF THE COMPENSATION OBLIGATION

The important element of the compensation system as far as the interest of an injured workman in it is concerned is that he shall have his right to compensation determined with as little delay as possible, and then when the right to compensation has been established that he shall receive the payments as provided by the law. Inasmuch as the insurance of the obligation is an essential factor in affording security for the payment of compensation, the insurance adjuster, as a representative of the insurer, assumes a position of

much importance in the performance of this function of the system. When an accident has been reported to the insurer by a compensation policyholder it is the adjuster who makes the investigation in order to determine whether or not the accident is covered under the compensation law. The report of the adjuster and the information furnished by him is the basis for any ruling that the insurance company may be obliged to make as to the coverage of the accident. If there is no question as to coverage and the disability lasts beyond the waiting period it is the adjuster, as the representative of the insurer, who sees that the injured gets his compensation according to the law. Any medical questions that may present themselves are discussed with the physicians by the adjuster, and the adjuster frequently represents the insurer in any negotiations with the administrative authorities that may be necessary. In those negotiations with the authorities which are merely formal the adjuster may also represent the injured, and assist him in any matters in which there is no conflict of interest between the claimant and the insurer. It will be seen, therefore, that the position of the insurance adjuster is a vital one in the compensation system.

The protection by insurance of the employer against the liability imposed by the common law was extensively practiced prior to the adoption of the compensation system, and it may be supposed that the insurance of the compensation obligation is but a natural and logical extension of this practice of carrying insurance to protect against the common law obligation, but the difference in the basis on which the insurance of each obligation rests is radical. The policy which was issued to the employer to protect him against his common law liability was for the protection of the employer rather than for the security of the employe, and it was an agreement between the employer and the insurer, limited in its extent, in which the employe had no legal interest. The policy covering the compensation obligation, on the contrary, is issued for the benefit of the employe, is unlimited in its extent so that it must provide for the assumption of the whole compensation obligation, and the employe can enforce the obligation directly against the insurer.

This difference in basic principles will account for the difference in the attitude of an insurance company in adjusting a claim under an employer's liability policy and one under a compensation policy. The liability companies have been subject to much undeserved

criticism for their alleged practices in adjusting liability claims, but a considerable proportion of this criticism has been due to a misunderstanding of the function of liability insurance, for it was assumed as a basis for the criticism that the liability policy was carried for the benefit of injured employes, and that an insurance company was attempting to evade its obligations when it failed to make immediate settlements. The answer to this criticism is that the insurer under a liability policy accepts only the common law liability of the employer, and has the same right to deny liability and contest a claim that the employer himself has and, in addition to this, the element of the measure of damages is so indefinite that it is often exceedingly difficult for an injured employe and an employer or his insurer to agree upon any reasonable amount in cases where liability exists, for the demand of the injured in such cases is usually far in excess of what an employer or an insurance company would pay without a contest, so the only alternative is to leave the matter to the courts for determination. The attitude of an insurer under a compensation policy is that the claims which may come under the law will be paid with all reasonable expedition in order that the purpose of the law may be carried out, and that claims for compensation will not be contested unless there is some reasonable basis, either in law or in fact, for contest. This is the spirit of compensation administration generally, and it is much to the credit of all administrative authorities in the United States, both the courts and the special administrative bodies, that, as far as the indemnity payments are concerned, the laws have been administered with an honest intent to execute their purpose, and in a spirit of fairness to all who are interested in their administration.

THE PUBLIC SUPERVISION OF WORKMEN'S COMPENSATION INSURANCE[1]

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The essentially social character of workmen's compensation insurance is, happily, no longer open to debate. Experience has shown, and informed opinion has everywhere recognized, that efficient insurance is indispensable to the public purposes for which workmen's compensation laws are enacted. Work accident insurance is thus affected with a public interest paramount to every private consideration, and the right and duty of the state to conserve that interest, either through direct governmental agency or through public supervision of private insurers, will scarcely be denied even by the extremest advocates of private enterprise. Therefore, as respects those jurisdictions which allow commercial insurance to exploit this field, it becomes important to define the aims, the instrumentalities and the limitations of public supervision.

The objects aimed at in public supervision should evidently be coincident with the public interests which supervision is designed to conserve. These interests comprise the prompt and full payment of accruing compensation benefits, security of deferred payments, equitable rates as among insurants, encouragement of accident prevention and the furnishing of insurance at reasonable cost.[2] These objects are sought to be attained through the supervision of claim settlement, the licensing of insurance carriers, supervision of reserves and rate regulation. The first of these administrative divisions falls without the scope of the present inquiry; it is not specifically a problem of insurance, but belongs to the general sub-

[1] This paper overlaps to a considerable extent an article on the "Organization of Workmen's Compensation Insurance" in *The Journal of Political Economy* for December, 1916, which article had already gone to press when the request for the present paper was received.

[2] For a fuller statement of the social ends of workmen's compensation insurance see an article by the present writer in *The Journal of Political Economy*, Dec., 1916.

ject of workmen's compensation administration. The remaining topics will be dealt with in the order named.

THE LICENSING OF COMPENSATION INSURERS

Compensation insurance, in most states, is restricted to authorized insurers—a restriction which is practically enforced by penalizing the employer for failure to obtain authorized insurance.[3] The objects of such authorization are two: to exclude unsound or irresponsible insurers and to bring every carrier of compensation insurance within the jurisdiction of the particular state concerned. The latter purpose is effected by designating the insurance commissioner as the insurer's attorney for the service of legal processes and by empowering him to revoke the license of any insurer which fails to comply with statutory requirements. Licensing is thus the beginning of supervision, for insurance is a business which may be carried on by mail without resident agents to punish or local property to seize so that, if unlicensed carriers were permitted to operate, there would be no practical method either of enforcing their solvency or of regulating their practices. But, while the states have taken good care to assert their jurisdiction over insurance carriers, the laws governing the admission of insurers are altogether too lax to secure financial responsibility. Stock companies, indeed, are required to possess a certain modicum of unimpaired capital, but this resource need not bear any stated relation to the amount of insurance in force, nor is any part of it set aside for compensation, as distinguished from other, liabilities. Similarly, mutuals and interinsurers must have the power to assess insurants, which takes the place of capital stock. Given a sufficient spread of risk, this assessment power is evidently an excellent security—few stock companies can show combined capital and surplus equal to one annual premium. Unfortunately, however, most states permit the organization of mutual or reciprocal insurers upon an utterly insufficient basis. Wisconsin requires the coverage merely of 1,500 employes, New York of 3,000, and Pennsylvania of 5,000. The annual premium upon 5,000 employes in a low rated industry may not equal a single death benefit. The fruit of such legislative folly is seen in

[3] Self-insurance, so called, will come within this category in those states which permit an employer to carry his own risk upon obtaining proper administrative authorization.

the closing out of three compensation mutuals and the more or less compulsory retirement of eight stock companies within the present year.

The weakness of the present licensing laws is apparently traceable to the American fetich of free competition. It is felt that stringent requirements for the admission of insurers would hinder the development of new companies and give an unfair advantage to stronger competitors. But this is to overlook the fundamental requirements of the case. Compensation exists for the protection of injured workmen and their dependents. The public interest in furnishing this protection—an interest expressly avowed in the legal obligation to insure—ought not to be prostituted to the profits of insurance promoters or even to the employer's right to purchase insurance where he pleases. Wherever, therefore, a private insurer, whether stock or mutual, is permitted to assume this public function, it should be required to possess a substantial volume of assets over and above incurred liabilities. A net surplus, not less in any case than five maximum death benefits nor less than 50 per cent of one year's premiums, and devoted irrevocably to compensation obligations, would seem to be the minimum requirement consistent with security.

RESERVE REQUIREMENTS

The compensation liabilities of an insurance carrier fall into three readily distinguishable categories: deferred payments on account of accidents which have already occurred, payments to be incurred by reason of ordinary accidents during the unexpired portion of existing insurance contracts, and payments on account of a possible catastrophe. The assets held against these several liabilities, present or prospective, are commonly known, respectively, as claim-loss, unearned-premium, and catastrophe reserves. Failure to keep in mind the very different requirements of these distinct types of reserves is responsible for not a few of the shortcomings in current insurance law and practice.

The importance of claim reserves is directly proportionate to the adequacy of compensation benefits. Any reasonably sufficient indemnity for work accidents must comprise life pensions to workmen who are permanently disabled and pensions for the whole period of dependency to the widows and orphans of those who are

killed in the course of employment. Since these pensions, in the aggregate, will greatly exceed the cost of temporary disabilities and of medical relief, much the greater part of the benefits incurred in any given year, under an adequate compensation law, will take the form of deferred payments. Even under the limited benefit provisions of most American acts, there are numerous liabilities running for long terms of years and thousands of families whose standard of life depends upon the security of future compensation payments. To an insurance monopoly, these deferred obligations need occasion no concern, for it is always in the power of a monopolistic insurer to meet current payments out of current assessments.[4] But the case is quite otherwise when the law permits free choice among competing insurers. The accrued cost plan of premium assessment is as inapplicable to competitive compensation insurance as to competitive life insurance, and for a somewhat similar reason. Current payments on account of accidents occurring in a given year are but a fraction of the ultimate liability; assessments, consequently, are low at the outset and only gradually approach their limit of full-reserve or incurred-cost premiums. Hence a new assessment insurer can always deplete the membership of an older rival which has already attained a high level of accrued payments. In compensation insurance, therefore, just as in life insurance, there can be no security for the deferred obligations of a competitive insurer save by means of adequate reserves. Under competitive conditions, accordingly, the maintenance of adequate reserves becomes the first duty of supervising authorities.

It must be owned that this elementary task of public supervision falls much short of fulfillment in the United States. The existing reserve law, designed originally for liability insurance, is notoriously inadequate for the conditions created by workmen's compensation. Its fundamental defect is the basing of reserves upon a fixed percentage of premium income—to wit, 54 per cent of earned premiums, less losses and loss expenses paid. By this

[4] The West Virginia State Fund, *e.g.*, is technically insolvent in that its assets in hand do not equal its outstanding liabilities. This fact, however, does not at all jeopardize the payment of claims. Payment has never been suspended and the deficit accumulated from the period of inadequate rates is being gradually extinguished by current assessments.

The statement in the text would, of course, not hold unless the monopoly possesses full assessment power and covers a substantial volume of industry.

maladroit device, either inadequate rates or abnormal losses will infallibly produce insufficient reserves. Moreover, it is just the small and weak companies, most in need of stringent reserve requirements, that are most exposed to both these contingencies. Weak companies notoriously are addicted to rate cutting, some of them operating at the present moment upon rates which are below pure premiums, at the same time that their expense ratio is much above the average for well-managed companies. Small companies, also, because of their limited risk distribution, are peculiarly liable to wide fluctuations of loss experience, while their very weakness drives them to an adverse selection of business. Inadequate reserves, accordingly, characterize weak companies under the present law—and the worse their experience, the smaller their reserves, not only relatively but absolutely. Given a loss ratio of 100 per cent—a ratio by no means unheard of in actual experience—loss and loss expense payments will easily absorb the full legal reserve, leaving a large balance of uncovered liabilities. To make a bad matter worse, the stipulated reserve is insufficient even for a normal experience with adequate rates. The present rates of leading companies are calculated upon an average loss ratio of 60 per cent, with an expense loading which includes 7 per cent of premium for claim adjustment.[5] The reserve law assumes, in other words, that 54 cents of assets will discharge 67 cents of indebtedness. Lastly, there is no segregation of compensation from totally unrelated liabilities, so that the security of compensation benefits is bound up with the general solvency of miscellaneous insurance carriers.

The shortcomings of the present reserve law have long been recognized. The proper remedies have been a subject of much discussion by companies and supervising authorities which has at length eventuated in a bill brought forward by the appropriate committee of the National Convention of Insurance Commissioners. This bill provides, in substance, that the reserves upon compensation policies issued more than three years prior to the date of valuation shall be the present value of future payments, and the reserves upon policies of later years of issue shall be 65 per cent of earned premium, less losses and loss expenses paid, subject, however, to the further requirement that the reserves on policies issued more than

[5] See *Proceedings of the Joint Conference on Workmen's Compensation Insurance Rates*, 1915 (New York Insurance Department), p. 24.

two years before the date of valuation shall be at least equal to the present value of future payments. The merits of the bill are that it increases the percentage basis of reserve and that it provides for an actual valuation of claims under all but the last two years of account. Its weaknesses are that it prescribes no method of individual claim valuation, that its required percentage of earned premium is insufficient to cover losses and loss expenses under present rates with average losses, that it allows three years to elapse before even this level will be attained, that it makes no provision (except a doubtful administrative discretion) for cut rate companies or companies with worse than average experience, that it permits the deduction of adjustment expense from compensation reserves, and that it fails to separate compensation from general liability obligations. Inasmuch as this bill is likely to be enacted in all compensation states and to afford the standard of compensation reserves for many years to come, it seems worth while to develop these criticisms at some length.

(1) There is at present no recognized standard for the valuation of compensation claims. Death benefits, indeed, when once the dependents are known, as also certain enumerated permanent disability benefits, are of determinate amount. Reserves for such claims can be set up on the basis of known future payments, fixed by statute or by an award of the compensation board. Other injuries, however, are of slow development, insomuch that their ultimate result cannot be known until the lapse of months, or even years from the date of accident. Reserves for this class of claims are set up on the basis of the claim adjuster's personal judgment as to the probable future development of each case. The result, too often, is a systematic undervaluation. Claim adjusters are apt to be optimistic by reason of their occupation—they earn their salaries by minimizing claim cost. The method, moreover, produces wide variations between different insurers in the valuation of similar claims, and it makes the work of an insurance department examiner extremely difficult, since, in case of dispute, he can oppose only his own judgment to the judgment of the insurer.

(2) It needs no argument to show that 65 per cent of earned premiums is not equal to 67 per cent. But this is only a part of the difficulty. With respect to policies of the last year's issue, the reserve is based, not upon actual earned premiums, but upon one-

half of the deposit premiums, which, upon the average, will amount to scarce 80 per cent of the final audited premiums. More concretely, the losses and loss expenses incurred as of December 31 upon policies of the current year's issue should be, upon the average, 33.5 per cent (67 x .50) of the final audited premiums, wheras the legal reserve is but 26 per cent (40 x .65). Further, since adjustment costs already paid are subtracted from reserves, abnormal adjustment costs operate, by so much, to impair the sufficiency of claim reserves. A company which maintains an adjustment cost of 10 per cent—a figure considerably exceeded by more than one compensation insurance carrier [6]—would have net claim reserves of 22 per cent of final premiums upon the current year's business, and of 55 per cent upon the business of earlier years—a total deficit equal to 18 per cent of one annual premium in the course of three years.

Thus far the discussion has assumed a broad distribution of business throughout the country, such as would justify the presumed average loss ratio of 60 per cent. But not a few carriers are confined to particular states and in several of these states the rates are predicated upon a loss ratio higher than the average for the whole country—namely, 65 per cent in New York and 62½ per cent in Massachusetts, Wisconsin and California. That 65 per cent of earned premiums will not pay the losses and loss expenses of carriers limited to these states is beyond the pale of argument. Neither can it be assumed that the business of any carrier is distributed among the several compensation states in the same proportions as the aggregate business of all carriers—indeed the exact contrary is known to be true. Nor is the alleged reason for a flat percentage anything more than specious. Compensation premiums are necessarily segregated by states and the computation of reserves by the method of law differentials would present much less difficulty than the computation of rates by the same method.

Still more serious than any of the deficiencies already pointed out is the failure to take effective account of inadequate rates or of worse than average loss experience. The pending bill does, indeed, authorize the insurance commissioner to increase the reserves of a company if he shall deem the same inadequate, but it affords no

[6] Cf. *Workmen's Compensation Insurance Report* of the Industrial Commission of Wisconsin, 1915, Table IV, and 1916, Table IV.

concrete test of inadequacy and it leaves in full effect that interstate comity which makes commissioners reluctant to exercise discretionary powers as against a company which is countenanced by the authorities of its home state. The pending bill thus perpetuates the vital defect of the existing law, in that all of its assumptions look to the collective experience of well managed companies. The liability of insurers is not joint, but several. It is not sufficient that the *aggregate* reserves of all carriers shall equal their aggregate liabilities; reserves must be adequate for *each* carrier.

(3) The three years' grace allowed the companies in which to reach the new reserve level is grounded upon a singular conception of public supervision—the conception, namely, that the main office of insurance departments is to conserve the interests of insurance carriers. Viewed in the light of obvious public interests, it would seem elementary that an insurer which has not sufficient assets to meet its incurred liabilities should be compelled to increase its resources or retire from business.

(4) Last, and by no means least, among the many shortcomings of the pending bill is its failure to set aside any explicit fund for the payment of compensation benefits. The great bulk of workmen's compensation premiums, aside from exclusive state funds, are written by casualty companies engaged in boiler, flywheel, elevator, automobile, personal accident and general liability insurance. Many compensation insurers derive much more than half of their premiums from these miscellaneous lines, so that their ability to discharge compensation obligations is inextricably bound up with their general liability experience. Yet general liability premiums are nowhere regulated, nor are liability reserves subject to any such definite control in the way of claim valuation as may be applied to compensation reserves. The two branches of insurance have nothing in common save that, by an historical accident, both happen to be carried by the same insurers. Liability insurance bears less of a public character than almost any other branch of underwriting; compensation insurance owes its very being to an act of legislation, it exists solely for the performance of a public function and its carriers stand in fiduciary relationship to thousands of beneficiaries who are not parties to the insurance contract, and who have no voice in the selection of their insurers. That the rights of these beneficiaries should be jeopardized, and the very

purpose of compensation laws defeated, by poor underwriting in some totally unrelated field of insurance enterprise is altogether intolerable.

A somewhat singular reply to certain of the criticisms leveled against the pending bill is that it requires an excessive reserve for unearned premiums which excess tends to offset the deficit in claim reserves. This alleged surplus derives from two sources: (a) acquisition cost (normally 17½ per cent) which has already been paid upon the whole deposit premium, and (b) excess collections on pay-roll audits, which may be taken on the average at 20 per cent of final, or 25 per cent of deposit, premiums. Stated arithmetically, 67 per cent of actual unearned premiums, or 33.5 per cent of the final premiums for the current year, should suffice to meet losses and loss expenses to be incurred during the unexpired portion of existing policy contracts, whereas the legal reserve is one half of the premiums in force (say 40 per cent of final premiums for the year). Taking into consideration the normal premium increases on pay-roll audits, less acquisition cost thereon, the unearned premium reserve may yield a substantial margin over claim and claim expense requirements for unexpired policy terms. This possible margin, however, is very far from providing reliable assets for the payment of claims. If the company continues in business it will incur, against unearned premiums, many expenses aside from acquisition and claim adjustment; if it is wound up, the cost of a receivership is no light matter. Prospective premium increases, in particular, are wholly problematical; in any given case there may be, instead, a net final return to policyholders. The utmost that can be hoped from this resource is an offset to the underestimate of earned premiums for the current year. This would leave a net surplus in the unearned premium reserve equal to the acquisition cost thereon—certainly not an excessive margin to cover the contingencies of reinsurance or of closing out.

The third division of compensation reserves—provision against catastrophe loss—is strangely ignored by the present laws. Most compensation insurers do carry excess insurance, either in London Lloyds or in a pool of stock companies. So far as legal requirements go, however, a mutual with $25,000 of premium income, or a stock company with $200,000 of capital and surplus, may assume unlimited liability upon any risk whatever.

It is not to be inferred from the foregoing strictures upon present and proposed reserve laws that a majority of compensation insurers are fast approaching bankruptcy. On the contrary, most of the large companies, both stock and mutual, are thoroughly sound and would continue to be so in the absence of any legal restrictions whatsoever. The point to be emphasized is that the soundness of these companies is due to the business policy of their management, and not at all to state supervision. That other carriers are not so fortunately situated is sufficiently indicated by the number of enforced withdrawals within the past three years. Nor is it necessary to wait for disastrous failures before taking effective means to prevent them. Having regard to the peculiarly public functions of compensation insurance, and to the fiduciary character with which the state itself has vested compensation insurers, the state should see to it that compensation claims can not be jeopardized by any failure of integrity or of business foresight on the part of insurance management. On every ground of social policy, compensation benefits should be surrounded by safeguards at least as effective as those which hedge about savings deposits, trust funds or life insurance policies.

If the foregoing analysis is at all correct, the laws relating to workmen's compensation reserves should be amended in the following particulars:

(1) Reserves of indubitable adequacy to meet all incurred claims should be set aside as a trust fund, invested in designated classes of high grade securities and held solely for the payment of compensation benefits. Claims arising under all policies save the last year's issue should be valued upon the basis of a standard table to be prescribed by the National Convention of Insurance Commissioners, with the further proviso that reserves for the last three years of issue should at least equal the calculated normal loss ratio for each state,[7] less compensation benefits actually paid. To the reserves so produced should be added at least 10 per cent to cover future adjustment cost. All this is in addition to the unearned premium reserve which probably should be maintained at the full amount as a further precaution.

[7] *I.e.*, from 57½ to 65 per cent of earned premiums, according to the law differential. With respect to current policies, earned premiums should be ascertained by a monthly computation.

The valuation table above spoken of would comprise three elements: (a) claims for known amounts, as accrued benefits, medical bills received, and the like, which should be taken at the face value; (b) claims for ascertained degrees of dependence or disability, including death benefits to known dependents and permanent disability benefits fixed by statute or award, all of which should be valued on the basis of mortality and interest; and (c) claims for injuries of unascertained gravity. Here would fall all that large class of long continuing disabilities which ultimately result in death or permanent disability, but whose permanence has not been ascertained at the date of valuation, as also claims not yet reported and all undetermined notices of recent date. All liabilities within this category should apparently be valued upon the basis of a standard distribution of accidents by ultimate nature of injury and extent of disability, similar to the well-known Rubinow table, only carried out with reference to the degree of maturity at the date of valuation. Thus, *e.g.*, the table should show the ultimate development of accidents arising under policies of each of the last three years of issue and still indeterminate (as to degree of dependence or extent of disability) at the date of valuation; or it might be constructed to show the ultimate average severity of injuries distributed by elapsed time from the date of accident.[8] In either event, such a table would furnish a far more trustworthy, uniform and

[8] Tables in the last mentioned form (though constructed upon very unsatisfactory data) have been promulgated by the New York and Pennsylvania Insurance Departments.

The table tentatively suggested in the text might take the following form:

DISTRIBUTION OF 10,000 ACCIDENTS ARISING UNDER POLICIES OF EACH YEAR'S ISSUE AND STILL INDETERMINATE DECEMBER 31, 1920

Ultimate result	1920	1919	1918	1917	1916	1915	1914	1913	1912
Death									
Permanent total disability									
Permanent partial disability of each specified degree									
Temporary disability of each specified duration									

verifiable basis of reserves than can ever be obtained by the haphazard methods of judgment estimates. Fortunately, the National Convention of Insurance Commissioners has already taken steps looking to the preparation of a standard valuation table to be derived from data compiled by leading insurance carriers.[9] The immediate object in view is a more uniform estimate of outstandings for classification of pure premium experience, but the same methods can obviously be applied to reserve computations.

(2) Capital or surplus equal to at least 50 per cent of the annual compensation premiums, but in no case less than $50,000, securely invested and assigned exclusively to compensation liability, should be a condition precedent to the writing of compensation insurance.

(3) Sound excess insurance, equal to the maximum catastrophe liability of the carrier involved, should be required of every compensation insurer.

RATE REGULATION

Rate control bears upon the security of future compensation benefits, in that rate cutting is the royal road to bankruptcy. Ostensibly, indeed, the safeguarding of beneficiaries is a chief end of adequate rate legislation. Very little analysis, however, will suffice to show that this object is mostly specious. The maintenance of adequate rates for compensation insurance in a single state will not serve to prevent ruinous rate cutting in other states or in other lines of insurance, nor will it prevent the dissipation of assets through extravagant management, poor selection of risks or unwise investments. A proper reserve law will absolutely protect the interests of beneficiaries, irrespective of rates, whereas an adequate rate law, at best, is but an indirect and ineffectual means to that end. The effective motive of rate regulation, then, is to be sought in the desire to promote fair dealing as among insured and fair competition as among insurers.

Rate regulation in the interest of insurants springs directly from the public character of compensation insurance. Indemnity for work accidents being a burden imposed by law, the state is morally bound to see to it that the burden is neither excessive in

[9] Mr. H. E. Ryan, of the New York Insurance Department, was a prime mover in this proposal.

proportion to benefits, nor unfairly distributed. What constitutes a reasonable insurance cost or an equitable distribution thereof will depend, of course, upon current economic-juridical conceptions, for there can be no absolute criterion of either reasonableness or equity. So far as prevalent opinion may be said to have decided these points, a reasonable rate, under competitive conditions, is one which will cover both the benefits to be paid and the expenses of insurance management as ordinarily conducted, while an equitable rate under a given scale of benefits and given expenses of management is a rate proportionate to the accident hazard of the particular risk insured. The maintenance of rates which will meet these tests would seem to be the most appropriate object of public rate supervision.

Curiously enough, however, rate regulation, in practice, is mainly directed to the protection of insurers against each other. So far as can be gathered, both from the laws themselves and from the spirit in which they are administered, the demand for rate supervision in this sense derives from a characteristic American prejudice in favor of competitive enterprise. Most of the states, in providing indemnity for work accidents, avoided anything like a comprehensive organization of accident insurance. Instead, they have deliberately encouraged a multiplicity of competing insurers—stock, mutual and state—trusting, apparently, that competitive selection will ultimately determine the form of insurance organization best adapted to this particular field. It is evident, however, that unrestricted competition between insurers of very unequal resources might well result in substantial monopoly by a few strong companies—a monopoly based, not upon economy or efficiency, but upon the financial ability to survive a prolonged period of deficient rates and ruinous selling costs. Hence, in order to preserve the competitive principle, it has been thought necessary to impose restraints upon its free exercise, both by prohibiting discriminatory rate cutting and by requiring the maintenance of adequate rates. At first blush a law which denounces insufficient, rather than excessive rates, is the very antithesis of the familiar anti-trust legislation. Yet in actual purpose, and in underlying preconceptions, the two sets of statutes are closely analagous.

The extreme reach of rate regulation, as hitherto applied to workmen's compensation insurance in this country, is marked by

the adequate rate laws of Maine, Massachusetts, New York, Pennsylvania, Maryland, Kentucky, Colorado and California. Only one of these acts (Kentucky's) prohibits unreasonable rates; none of them contains any definition of adequacy or any explicit requirement that the rates of different insurers shall be uniform, while some even neglect to forbid unfair discrimination among insured. Legally, therefore, each insurer is free to devise such classifications, rules, rates and merit rating as may seem good to it, subject to the single proviso that it shall not charge less than the rates approved by the supervising authority as adequate for such insurer.[10] Strictly interpreted, this latter phrase would seem to require different rates for different carriers, for it is well known that both loss and expense ratios vary widely as among insurers. Administratively, however, adequate rates have everywhere been held to mean rates sufficient to cover the average pure premium upon each classification plus the average expense ratio of well-managed stock companies, without other allowance for profit than the investment income from reserves. In practice, accordingly, only one set of classifications, rules and rates, and only one plan of merit rating, has been approved in each adequate rate state.[11] So far as the adequate rate laws, thus interpreted, are effectually enforced, the premium charge on any given risk is uniform for all insurers. The sole officially countenanced exception to this uniformity is that participating carriers are permitted to return, as dividends to policyholders, whatever they are able to save in either losses or expenses.[12] Nominally, indeed, except in Kentucky, any insurer may charge more than the approved rates, provided it does so without unfair discrimination, but practically nothing of the sort is either feasible or attempted. Not only

[10] Kentucky requires that rates shall be reasonable as well as adequate.

[11] In Massachusetts and Pennsylvania certain mutuals are required to charge more than the approved basis rates in view of their high dividend policy. The Pennsylvania State Workmen's Insurance Fund is permitted to charge 10 per cent less than the rates approved for other insurers on the ground that its expenses of management are paid by the state.

[12] This exception is entirely consonant with the theory of adequate rate laws as above explained. The laws seek, among other things, to maintain fair competition between different types of insurance management, each offering its own peculiar advantages for the selection of insurants. A principal advantage claimed for mutual insurance is its lower cost, to offset which stock companies claim to furnish a superior degree of protection and of service.

does the legal minimum thus become the actual maximum; the enforcement of uniformity, in the presence of mutual competition, tends to keep rates at the lowest level consistent with stock company management.

The maintenance of uniform rates is evidently a far more difficult undertaking than the maintenance of adequate reserves. The latter involves no more than the valuation of claims and the scrutiny of investments. The former touches every incident of underwriting: the construction of classifications and their application to individual risks, the calculation of pure premiums and expense loadings, policy forms, the application of merit rating, even the audit of pay rolls and the actual collection of premiums. Uniformity must extend even to the least of these matters, because premium income can be as easily impaired by misclassification, excess coverage, fictitious "merit" credits, or understatement of pay roll, as by direct rate cutting. Nor is it sufficient to lay down uniform rules of underwriting; these rules must be actually carried out in respect of every policy underwritten. Rate supervision, in short, involves both rate making and rate enforcement: on the one hand, the elaboration of a detailed, uniform code of classifications, rules, rates and merit rating charges or credits; on the other hand, day by day observance of the application of this code to the underwriting of individual risks.

Manifestly, rate supervision in this comprehensive sense cannot be effected without elaborate administrative machinery. It is necessary, in the first place, to base rate approval upon adequate and disinterested information. Rate making is only to a limited extent a matter of mathematical computation. The very classifications for which rates are to be computed, the extent to which given statistical experience can be taken as typical or has been affected by errors of sampling, the effect of merit rating upon accident frequency and severity, the allowance to be made for varying effectiveness of claim supervision in different jurisdictions, even the accuracy of reported expense ratios, are all subjects for the exercise of trained judgment—subjects, too, as to which informed opinions will differ and the proposals of insurers be biased by competitive interest. Nor can these difficulties be disposed of once for all. Conditions are ever changing and the great code of classifications, rules and rates must be periodically revised to meet the exigencies of the

business. Rate approval, then, demands adequate, continuous machinery for the furnishing of information and advice. Similar machinery, in the second place, is no less necessary for rate enforcement. Reliance upon individual complaints of violations is altogether futile, for the same reason that the like judicial process has failed in every attempt to regulate intricate business activities. Complaints are rarely made because insurance agents who have knowledge of departures from approved rates usually are unwilling to risk the enmity of prospective insurants—it is simpler and more effective to secure a like competitive concession from the home office. Even in the rare instances of formal complaint, proof of deliberate violation is always difficult and often impossible. Competitive rate cutting most often takes some indirect form: a misclassification which can be represented as an honest error of judgment, an excessive merit rating discount which may be resolved into a difference of opinion, or an auditor's oversight in the matter of expended pay roll. At best the proceedings can be spun out until the full competitive advantage of the illegal practice has been reaped; at worst, they result in nothing more severe than the cancellation of the particular policy involved.

Competitive underwriting, in fact, like other competitive selling in scattered and unorganized markets, tends inevitably to wide deviations from a common price level. Where tens of thousands of employers are being solicited by thousands of agents, representing thirty or forty insurers, each interpreting classifications, rules and rates in its own way and applying merit rating through its own staff, no approximation to uniformity can be attained. The temptation on the part of a commission agent to obtain business by rate cutting is one which human nature is ill fitted to withstand, and the companies are much too dependent upon their agency connections to exercise effective restraint. Merit rating, indeed, is usually taken out of the agent's hands, but so long as it remains in the hands of the insuring company, the bias of competitive interest cannot be escaped. To permit company classification and rating of risks, then, is to make rate regulation nugatory.

Just in proportion, therefore, that rate supervision has been made effective, both rate making and the detailed application of rates to risks have been removed from the control of individual insurers. At the same time, it has not been thought either expedi-

ent or necessary to vest these vital functions directly in the supervising authority. Such a course would require a government organization as flexible, as well-informed and as ubiquitous as the business to be supervised, and it would substitute the judgment and initiative of government officials for the judgment and initiative of insurance carriers. Rather than adopt this extreme measure, it has seemed the part of wisdom to utilize the extant machinery and information of the carriers themselves, so coördinated as to remove the warping effects of competitive interest. Altogether the most effective instrumentality hitherto devised for this purpose is the representative rating bureau, made up of all compensation insurers operating within the state, and empowered, subject to the approval of the supervising authority, to formulate risk classifications, rules, basis (or class) rates, and merit rating plans, to assign individual risks to existing or special classifications, to apply merit rating through inspection or otherwise, and to scrutinize the underwriting of all risks by means of a policy "stamping office."[13] Bureaus upon this general plan, though with many variations of detail, have been established in New York,[14] Massachusetts,[15] California, Pennsylvania and Colorado.[16] Experience of their actual working has been too brief to afford a decisive test,[17] and there is even some question of their full legality,[18] but their *a priori* advantages are so

[13] The "Stamping Office" receives, examines and approves or disapproves a duplicate of every policy declaration. This practice was first established by the Industrial Commission of Wisconsin under the anti-discrimination law of 1913, and has since been adopted by the rating bureaus of California, Colorado and Pennsylvania.

[14] The order is chronological.

[15] The Massachusetts Bureau accepts company inspections, subject to such verification as may be required.

[16] The Colorado Bureau is in a state of suspended animation, pending determination of its legal status.

[17] The oldest state bureau, the Compensation Inspection Rating Board of New York, dates from midsummer, 1914.

[18] A rate maintenance association might have been held illegal at common law or under anti-trust statutes, but all questions on this head are set at rest by the adequate rate laws, provided these are valid.

The points of attack (fathered especially by the Travelers Insurance Company) upon state compensation rating bureaus are the right of a public official to delegate supervising authority to an unofficial association, and the ability to make the approval of rates or of merit rating conditional upon application by such an association. In reply it is argued that no supervising authority is delegated to the

great that they promise to become a permanent feature of rate regulation.[19] A representative rating bureau, just because it comprises every type of insurer, will ordinarily be impartial as between stock and mutual interests,[20] at the same time that it may fairly be said to embody the collective wisdom of the business. Whence it is at once the most potent agency at the disposal of the government for giving effect to rate regulation, and almost the sole source of advice which is both competent and disinterested. For the routine work of rating individual risks in accordance with the existing code, the bureau supplies a trained and impartial staff, while it brings to bear the collective views of rival insurers upon all those questions which involve the exercise of discretionary judgment or the compromise of opposing interests.

When all is said, however, rate making transcends the limits of any state. Notwithstanding many local variations, there is a striking similarity of industrial technique, and consequently of industrial hazards as well, throughout widely separated territories. By the same token, the problems of industry classification, of classification rules and of schedule rating—to say nothing of statistical and actuarial methods—are common to the whole country. To which it must be added that no state has a sufficient volume of exposure for dependable rate making in every classification or is wholly independent of the experience of other states in more than a very few classifications. Out of these conditions arises the need for a supra-organization to coördinate the activities of territorial rating bureaus. This need has been in part supplied by joint stand-

bureau since all its acts are subject to supervision to the same extent as the like acts of individual insurers, and that the supervising authority may properly make his approval of rates conditional upon their application by an impartial agency—else his approval were a farce. These questions have not been judicially determined.

[19] Local branches of the National Compensation Service Bureau have been recognized as official rating bureaus, for the purposes of merit rating, in Kentucky and Maryland. The parent body is a voluntary association of some twenty stock companies, but these local branches have been opened to non-members, even including mutuals. The great weakness of this plan is that it vests the rate-making function in a single group of competitors.

[20] In the Pennsylvania Bureau the Insurance Department has a casting vote in case of a tie in every committee. During the first year's experience, notwithstanding the great number of controversial subjects passed upon, this power was exercised on only two occasions.

ing committees, representative of the several state bureaus and of the various types of insurers among their constituents.[21] The federative organization so constituted is as yet somewhat invertebrate, but it has at least effected a large measure of uniformity in manual rules and classifications, in the structure of schedule rating and even in the basic pure premiums from which state rates are derived.

Rating bureaus, state or inter-state, be they ever so efficient for their purposes, will not obviate the need for independent knowledge on the part of supervising authorities. The questions to be passed upon involve something more than the maintenance of fair competition among insurers; they extend as well to that equitable distribution of work accident cost with which the state is more immediately concerned. The ends of equity are not served by the mere uniform application of rates, unless these latter are reasonably proportionate to the industrial hazards involved. Neither can such proportionality be lightly assumed of classifications and rates evolved by compromise between competing insurers. To assure the results professedly sought, the whole system of insurance classifications, rates and merit rating should be subjected to rigorous analysis in the light of all available information. Characteristically enough, however, no state which has undertaken to supervise compensation insurance has seen fit to provide facilities at all commensurate with the responsibilities assumed. The actual work of supervision falls, in every instance, upon a subordinate appointee and a handful of clerical assistants, unprovided with technical advisers and without either means or leisure for independent research. It has not been possible, in any of the adequate rate jurisdictions, to compile accident statistics in correlation with insurance classifications and exposed pay rolls, to say nothing of such analyses as would serve to throw light upon the validity of the classifications themselves or the reasonableness of merit rating deviations from basis rates. Yet the raw materials for such statistics, in the shape of accident and pay-roll reports to public authorities, exist in every

[21] The Standing Committee on Compensation Insurance Rates comprises three stock companies, two mutuals, a (competing) state fund, and an insurance department. The Standing Committee on Schedule Rating is similarly constituted. Both these committees meet monthly and to them are referred all manual or schedule rating amendments proposed by the constituent bureaus, though the findings of the Standing Committee are not binding until ratified by the bureaus.

one of these jurisdictions. The failure to make the necessary correlation—a failure attributable as much to divided authority as to insufficient appropriations—is a striking instance of systematic ineptitude.

The argument thus far goes to show that effective supervision of compensation insurance rates imposes far-reaching restraints upon competition. Neither rate making nor the application of rates to individual risks, neither policy forms nor underwriting rules, not even the amount of commissions to be paid for the acquisition of business, is left to the discretion of individual insurers. It only remains to point out that competition so straitened and bound loses many of those attributes which admirers of the competitive system have always ascribed to it. When uniform rates are prescribed by government and uniform underwriting is enforced by a rating bureau, there is little scope for competitive selection of business and less for that competitive adjustment of price to minimum cost of service which the classical economists so fondly expounded. Competitive selection of business is handicapped by the prohibition of discretionary rate cutting upon preferred risks and the competitive advantage of economic management (as respects stock companies) is taken away by the incorporation in basis rates of a uniform expense loading. Even the flexibility which is claimed as a chief advantage of private insurance disappears under rigorous regulation. Quick adaption to changed conditions is impossible when every manual change has to be worked out by representative committees and assented to by supervising authorities. Competition under such conditions tends prevailingly to take the form of salesmanship, more or less disguised as "service."[22] Economic waste, indeed, is the only characteristic of competitive insurance that is untouched by regulation.

[22] It is not denied, of course, that there is competition in real, as well as fictitious, service.

BOOK DEPARTMENT

THE BUSINESS MAN'S LIBRARY

Advertising and Salesmanship

Adams, Henry Foster. *Advertising and Its Mental Laws.* Pp. xi, 333. Price, $1.50. New York: The Macmillan Company, 1916.

Three distinct types of books relative to the field of advertising have already appeared: those which relate to problems of advertising, those which tend toward an emphasis of the economic problems involved in advertising, and a combination of the two. Professor Adams' book would be classified among the first, or a book which more nearly conforms to the psychological interpretation of advertising. It presents in simple language the basic facts and principles of psychology which are related to advertising and points out the applications of the principles; it reduces the complexity of the printed advertisements to its elements and shows with mathematical exactness the effect of the various elements; and it compares results of experiments which have been carried on in the laboratory with the results of actual advertising campaigns. This book could be used admirably in conjunction with a general course in advertising, but only in a supplementary way, as it does not unify the entire subject of advertising, including the economic problems involved, but merely emphasizes a quantitative analysis of the psychology of advertising. Professor Adams' work, however, will be used continually in connection with the rapidly developing teaching field of advertising.

H. W. H.

Brisco, Norris A. *Fundamentals of Salesmanship.* Pp. xiv, 322. Price, $1.50. New York: D. Appleton and Company, 1916.

This book succeeds in presenting simply and effectively the psychological phases involved in training successful salespeople, and the relationship between the manager and the sales force. The human element is emphasized throughout and involves a clear exposition of the factors necessary to be considered in developing the right kind of personality in connection with selling. The general criticism from a teaching point of view would be regarding the arrangement of the various chapters of the text, for if the principles discussed are not presented in a way so as to unfold themselves in the consciousness of the student a large part of the effort has been wasted.

The book emphasizes two phases of thought; first, the training of the individual to meet the responsibilities of salesmanship, and second, an emphasis of the system of which the individual finds himself a part and which involves objective factors relating to his life; as, for instance, the element of fatigue in connection with the demonstration of problems in selling, welfare work, special training, etc.

Because of its simplicity and directness, this book should find some place in our general school system. Business managers also can most profitably use it.

H. W. H.

SHERBOW, BENJAMIN. *Making Type Work.* Pp. 129. Price, $1.25. New York: The Century Company, 1916.

This text is an admirable one to be used in conjunction with a general course in advertising. The author has been exceedingly practical in presenting his analysis of what constitutes type which is easily read. Moreover, the general discussion shows psychology at work in the choice of such type as will command attention, shift the emphasis of attention, produce emphasis through contrast, and overcome the monotony of emphasis. The all-important subject of subheads and sideheads is admirably analysed, and examples excellently selected showing the psychology of getting just the kind of attention which is needed. A discussion of the careful distribution of white space, what constitutes crowded copy, and the necessity for a sane regard of the appropriate type faces are among the subjects which indicate the intense analysis which is given to attention as related in the general make-up of advertising. For one who is involved in a discussion of the problem of attention in advertising, this text will serve a most convenient purpose in giving to the student, in practical form, the psychological factors involved. The illustrations comparing different possible effects are comprehensive and convincing.

H. W. H.

BANKING, INVESTMENTS AND FINANCE

ROBINS, KINGMAN N. *The Farm Mortgage Handbook.* Pp. xiii, 241. Price, $1.25. New York: Doubleday, Page and Company, 1916.

The purpose of this book is to bring farm mortgage banking to favorable attention by describing the methods and practices employed by the most reliable farm mortgage bankers. The author defines farm mortgage bankers as "corporations, firms or individuals which negotiate farm mortgages with their own funds, and resell them in completed form to investors." It is the farm mortgage as standardized by these companies that is considered in the handbook. What the standardization of such mortgages involves is indicated by a terse statement in the foreword by Dr. T. N. Carver as follows: "Standardizing a business consists merely in holding all competitors up to the best methods of the best competitors."

One error may be noted. The author quotes average farm mortgage interest rates published by the Department of Agriculture (Department Bulletin No. 384) and in commenting on these rates (page 34) he assumes that the averages have been made without reference to the volume of business done at each of the actual rates reported, which is not the case.

While the book is intended "principally for investors who would thoroughly familiarize themselves with this form of investment" it should be of value to all persons interested in farm credits.

C. W. T.

FOREIGN TRADE AND COMMERCIAL GEOGRAPHY

WILCOX, EARLEY N. *Tropical Agriculture.* Pp. xviii, 373. Price, $2.50. New York: D. Appleton and Company, 1916.

Agricultural products annually imported into the United States from the tropics have a value of over $600,000,000,—a third of all of the imports of this country. Most of us do not realize that "the humblest table bears food products from Brazil, Cuba, India, Java, Malacca Islands, Tahiti, Mauritius, Gold Coasts, Jamaica, Hawaii, Porto Rico and other parts of the tropics." The author has had in mind the general reader in writing this work, not the farmer of the tropics.

Little has been written in the past in this country of tropical agriculture, largely perhaps on account of having no direct interest in those countries. The possession, however, of the Philippines, Porto Rico, Hawaii, American Simoa, Guam and the Panama Canal Zone have attracted attention to the tropical problems by American economists and men of commerce. The public school as well as the college student should be interested to read it now.

Although the author has had for his purpose in writing this book the idea of impressing the reader with the great opportunities of the tropics still he has been very fair, and he will probably not succeed in convincing the reader that he would do well to cast his lot for a livelihood as a small farmer in the tropics.

He is especially clear in discussing economic conditions not to overestimate the opportunities for the small farmer but shows that it is the large owner who reaps his profit from low-priced labor or the middle man who has made great profits. The problem of the tropics is first to establish definite and economically sound policies. Under the present system of managing of the tropics the opportunity now is only for the capitalist, the agricultural expert, or the man of commerce. Thus far he says "a system of managing the tropics has merely developed a feudal system for the exploitation of land and of cheap labor."

In discussing the climate he speaks of the many advantages but does not fail to speak of the disadvantages. Conditions have changed and the precautions taken of sanitation make it no longer dangerous to go to the tropical cities. There are almost none of the discomforts of our climate yet he says: "It still remains doubtful whether the tropics are well adapted for the permanent residence of the white man."

Climate, soil, agricultural methods, live stock and economic conditions are briefly discussed. The larger part of the volume deals with a description of the nature, source and commercial importance of about 350 tropical products, including sugar cane, nuts, fruits, starchy foods, tobacco, fiber plants, rubber, gum, drugs, tans, dyes, spices, flavorings, perfumes, oils, timber and woods. Several of these are not now commercially important but could be developed. The appendix, with reviews of the literature related to the subject and a full bibliography of the periodicals, from all parts of the world are especially good.

CARL W. LARSON.

Columbia University.

WOODROFFE, JOSEPH F. and SMITH, HAROLD H. (Ed.). *The Rubber Industry of the Amazon.* Pp. xlviii, 435. Price, 21 s. London: John Bale Sons and Danielsson, Ltd.

The big problem of the economic development of the Amazon Valley is discussed by Mr. Woodroffe who has spent many years in this region, and edited, with the addition of some chapters, by Mr. H. H. Smith, editor of the London publication *Tropical Life.* The combination of authorship has given us a book filled with interesting descriptions of present conditions in Amazonia and thought-provoking suggestions as to the future.

While several chapters are descriptive of the rubber industry as it is conducted today, the main object of the book is to show "how the supremacy of the rubber industry of the Amazon can be maintained and consolidated, in spite of the increasing seriousness of the competition to which it has lately been subjected by the plantation rubber now produced in the East." Briefly stated, the editor's thesis runs somewhat as follows: Brazil has long faced a serious financial crisis, and this is made especially acute by the decline in rubber prices under Far Eastern competition. English investors, with £350,000,000 placed in Brazil, should be interested in putting the country on a sound basis. This can be accomplished by developing the great resources of the Amazon Valley. To do this, rubber can be developed fully only by making it a subsidiary industry to agriculture and other industries capable of development. This larger development can only be brought about by increasing the labor population in order to drain and cultivate the agricultural land and to make accessible the large untouched areas containing rubber trees. This regeneration "cannot be brought about by the Brazilians alone, especially by the bulk of those who are directly responsible for the output of rubber from the forests. It always will and must be an international question, divided between the large consumers of rubber and those countries having the heaviest financial stake in the republic."

Unquestionably the solution of the labor supply question holds the key to the development of the Amazon. Several chapters of the book are devoted to a discussion of this problem. The population question the authors would settle by colonization from Japan, China and other Far Eastern countries, and by amalgamations of these races with the natives. In this connection the book contains several unwarranted assumptions; for example, that Oriental immigrants into sparsely populated Brazil would practice the same agricultural methods as in the crowded Orient; that they would or could flourish as small proprietors in the Amazon wilderness; that they would amalgamate with the natives; that both the Japanese and Brazilian governments would consent to such a scheme of colonization. If the breeding of human beings were as easily controlled as is the breeding of cattle, we might accept Mr. Smith's statement (p. 8) that the native Indians would "interbreed with the Asiatics, and between them develop a mixed race possessing the hardiness of the Indian with the stolidness, stability of character, and business capacity of the Asiatic." Most readers will agree with the authors that the solving of the labor question would largely solve the future of Amazonia; many will disagree that the solution is as easy as the book indicates.

The fresh and vivid account of the rubber industry emphasizes the great need of developing supply and other crops along with rubber, if the Amazonian

region is to compete with the Far East. The suggestions of the authors as to the future are stimulating, but many will regard their conclusions as over-optimistic. The clearing and draining of land, the overcoming of insect pests, the development of certain industries like lumbering, are made to seem more promising than the facts will warrant. In the final chapter, the editor lays at the door of the Monroe Doctrine part of the blame for the present lack of development of the Amazon, and thinks that the flow of European capital into Brazil will be lessened as long as the feeling exists that the Monroe Doctrine prevents European nations from giving full protection to European capital.

The book is, unfortunately, badly organized. There are many repetitions, the same topics are discussed in several separated chapters, and a poor index makes it difficult to dig out the all new and valuable information the book contains on many topics. One also lays down the book with the feeling that the authors have failed to prove their contention that the Amazon can maintain its supremacy in competition with the Far East.

G. B. ROORBACH.

University of Pennsylvania.

INDUSTRIAL MANAGEMENT

DURELL, FLETCHER. *Fundamental Sources of Efficiency.* Pp. 368. Price, $2.50. Philadelphia: J. B. Lippincott Company.

"The present work is an attempt to analyze the various forms and sources of efficiency into a few elemental principles. It is felt that the study of such primal elements will not only aid in the mastery of efficiency in a given field, but will prevent this important idea from assuming a narrow meaning and thus leading to limited or even, in some respects, harmful results."

This work is not the product of an efficiency engineer, but of an academician, a professor of mathematics, who is philosophizing in a broad way about the forms which efficiency takes. Some nature of the abstractness of the elements to which efficiency is reduced may be found in the chapter headings, of which the following are samples: Reuse, The Group, Multiplicative Groups, Externality, Symbolism, Rhythm, Error and Paradox. This text will be found of considerable value in preparatory schools. The college teacher may find some material of interest and even some illustrations of value in its pages. However, the author frequently falls into a discussion of the too obvious, as for example, in the discussion of Absence as a Symbol; we hardly need to be told that "absence or silence may indicate dislike, forgetfulness, suspicion, or have any prearranged meaning. Thus we have the saying 'Silence is more eloquent than words.' " We hardly need to be told that the word "bill" has different meanings, as "In the second sentence, the woodcock has a bill, and I will not pay this bill."

J. H. W.

HOLLINGWORTH, HARRY L. *Vocational Psychology.* Pp. xviii, 308. Price, $2.00. New York: D. Appleton and Company, 1916.

The increased endeavor of labor executives to select employes intelligently (indeed the growing attention to vocational direction in general) resolves itself into

two main problems of technique: (a) The analysis of the vocation or job; (b) The analysis of the man.

The lines of solution of the first question are so clearly marked that the problem has become primarily administrative.

The analysis of the man is an immensely more complex problem, involving the whole field of psychological analyses and tests. Because of its complexity, which baffles the average routine-burdened executive and because of its importance, charlatans, offering attractive short-cut solutions, are numerous.

An authoritative but semi-popular book, which traces the history of the development of human nature tests and separates fact from fallacy in the ready-made plans of some of the phrenological and physiognomic "experts" is, therefore, peculiarly welcome. The book is essentially a presentation of the problems and methods of that branch of applied psychology which deals with individual differences in mental constitution. In the present instance only those differences are considered which may seem to be significant in determining the individual's choice of a vocation, or in influencing the selection of workers from among a group of applicants or candidates. It is thoroughly worth careful reading by employment executives or vocational counsellors.

The appendix contains a comprehensive bibliography and some suggestive tests used at Columbia University.

J. H. W.

INSURANCE

HENDERSON, ROBERT. *Mortality Laws and Statistics.* Pp. v, 111. Price, $1.25. New York: John Wiley and Sons.

This book is one of a series of mathematical monographs, published by Wiley and Sons and is the work of the Actuary of the Equitable Life Assurance Society of the United States. It is an excellent short treatise on mortality tables. While it requires a knowledge of calculus to follow all the calculations in the book, certain portions are available to the lay reader. The first chapter gives a description of all the mortality tables which have influenced the development of the science of life contingencies. The technical chapters deal with an analysis of probabilities of death and survival, formulas for the law of mortality, and the construction of mortality tables from insurance experience and from census and death returns.

B. D. M.

RUBINOW, I. M. *Standards of Health Insurance.* Pp. v, 322. Price, $1.50. New York: Henry Holt and Company, 1916.

Assuming the need of a comprehensive system of health insurance in the United States and the fact that the need is rapidly coming to be realized, the author treats in detail the various problems that must be considered in drafting adequate laws dealing with the subject. The problem of compulsion is handled; the conclusion reached is that compulsory insurance is necessary for all persons earning less than $1,200 or $1,500 per annum if the problem is to be properly met. The fundamentals of a comprehensive system—medical care, sick benefits, mater-

nity benefits, funeral benefits—are outlined. The questions of cost and the distribution of the cost are carefully discussed. The author suggests that two-fifths of this cost be borne by the employer, two-fifths by the employes and the remaining one-fifth by the state. The administration of the insurance should be by mutual associations carrying on their work under state supervision. Careful consideration is given to the relation of any plan of health insurance to workmen's compensation and other forms of social insurance. In the concluding chapter estimates of cost are presented.

Mr. Joseph P. Chamberlain has contributed an appendix on the constitutionality of health insurance and Alexander Lambert one on the organization of medical aid.

This volume is timely and furnishes an interesting brief for the Model Bill on the subject prepared by the American Association for Labor Legislation.

A. F.

MANUFACTURING INDUSTRY

CLARK, VICTOR S. *History of Manufactures in the United States, 1607–1860.* Pp. xii, 675. Price, $6.50. Washington: Carnegie Institution of Washington, 1916.

This is the second of the contributions to American economic history which have been written under the auspices of the Carnegie Institution of Washington. The work of coöperative research, which was begun almost fifteen years ago under the auspices of the American Economic Association and under the general direction of the late Carroll D. Wright, is now, under the editorship of Professor H. W. Farnam, beginning to yield its fruits.

Of the twenty chapters in the present volume that deal with the history of manufactures, nine cover the colonial period, eleven the period between 1790 and 1860. Dr. Clark first describes the colonial environment, British policy, and colonial legislation affecting manufactures. There was an abundance of raw materials and the colonists themselves frequently endeavored to stimulate manufactures by bounties, land grants, and similar devices, but British colonial policy was against their development, while greater gains were to be had in the more direct exploitation of the natural resources. But with the improvement of transportation facilities and of larger home markets domestic colonial manufactures began to expand. Scarce and unstable currency, however, proved a disturbing factor, as did also the scarcity of capital and labor. Two final interesting chapters on this period deal with the technology and organization of colonial manufactures, and with the sources of information.

Manufactures were stimulated by the cutting off of foreign supplies during the Revolution, but in the twenty-five years following the end of that struggle they suffered greatly from competition and from the greater profitableness of other industries. However, after the embargo and the tariff of 1816 they began to develop steadily. The spread of the factory system Dr. Clark attributes quite as much to the growth of markets in the South as to the invention of new processes and machines. The effects of tariff legislation, of the development of better transportation agencies, and of a more plentiful supply of capital and labor are

treated in successive chapters, as are the technical progress, the organization, and the general distribution of manufactures. Some valuable appendices conclude the volume.

One is inevitably led to compare this work with that of Bishop, which covers practically the same ground and for so long has been the single authority covering the whole field. Dr. Clark's book is more analytical and endeavors to explain the movements and forces of each period, and not merely to chronicle facts. It moreover takes up phases of the subject not touched upon by Bishop, such as organization.

All in all it constitutes an admirable economic history of manufactures. This volume is apparently the work of Dr. Clark alone, for practically no acknowledgments of the preliminary work of collaborators in this field are made. Yet a study of the bibliography reveals the fact that other writers had prepared monographs which have been used in the preparation of the completed work. A second volume, covering the period from 1860 to date, is promised.

E. L. BOGART.

University of Illinois.

MERCHANDISING: WHOLESALE AND RETAIL

NYSTROM, PAUL H. *Economics of Retailing.* Pp. xi, 407. Price, $2.00. New York: Ronald Press Company.

In presenting this book to the public, Mr. Nystrom has done a real service in formulating a logically discussed text relating to the economic principles in retailing. Most previous books on this subject have been purely descriptive in nature without making the reader feel the working force of the many principles involved. Mr. Nystrom, however, overcomes this defect and creates in us a feeling of respect for our present retail system in the distribution of goods. This book could be used by any class wishing to exhaust the practical and theoretical discussions involved in retail selling. The chapters are arranged in logical order, involving the old and new systems of distribution, the present status of retailing, the necessity for profit in retailing, and the human element related both to salespeople and consumer. The conflicting elements effecting profit both to the retailer and to the consumer are discussed in their relation to store location, rent, and the various institutions of distribution which have arisen therefrom; namely, the department store, chain store systems and mail order house. As the name of the book implies, *Economics of Retailing*, the underlying principles of economics are applied directly to every practical problem found in the retail business realm, with a projection into the future in the discussion of such subjects as the Failure Rate and the Retail Business, Are There Too Many Retail Stores, and The Ideal Retailing System.

H. W. H.

TRANSPORTATION AND TRAFFIC

WYMOND, MARK. *Railroad Valuation and Rates.* Pp. 339. Price, $1.50 Chicago: Wymond and Clark, 1916.

This is a book by an engineer who has had "thirty years' experience in connection with the promotion, construction, reconstruction, operation and valuation of railroads as an engineer in the service of railroad corporations, of banking institutions," etc. The evident purpose of the author was to state in an elementary way the main problems connected with the valuation of railroads and with the determination of the reasonableness of railroad rates. This part of the book is, however, preceded by four chapters upon railroad history, promotion, construction and capitalization. These preliminary chapters are too brief and general to be of value. Those who are beginning the study of railroad valuation will find the volume helpful. The author is not critical. In a conservative spirit he points to some of the dangers of present methods of regulation and emphasizes the necessity of allowing the railroads ample revenues.

E. R. J.

ECONOMICS

ADAMS, ARTHUR B. *Marketing of Perishable Farm Products.* Pp. 180. Price, $1.50. New York: Columbia University Press, 1916.

One of the most important problems of the present day is discussed in this book. A careful survey is made of the different methods of getting perishable farm products from the producer to the consumer. The several steps are analyzed and the weak points brought out. Some of the reasons for the difference between what the farmer receives and the consumer pays are losses from decay, fluctuation in prices, cost per unit for transportation and distribution, and inefficient methods and dishonest practices of middlemen.

To secure cheaper and more efficient ways of carrying on market processes three general lines of action are shown. These are a government market department to conduct interstate commerce in perishable goods, standardization of grades and packages and the elimination of unfair business practices. Other factors in relieving the burden of the present system are readjusting of seasonable production, reduction of the perishability of the goods, and the development of centralized producing sections. The book is valuable in pointing out definite defects and discussing corrective measures. It does not contribute much that is new to the solution of the problem.

N. D. H.

BOGART, ERNEST LUDLOW and THOMPSON, CHARLES MANFRED. *Readings in the Economic History of the United States.* Pp. xxvii, 862. Price, $2.80. New York: Longmans, Green and Company, 1916.

The intention of the authors in writing this volume was to supply, for classes studying the economic history of our country, a book that would contain in one place the widely scattered material necessary to supplement a systematic text-

book or lectures. It aims to place before teachers and students in an easily accessible form original letters and essays or extracts from books now out of print, so that they form a connected story of the economic forces that have shaped our history. To accomplish this purpose the authors have drawn from the writings of men contemporary with each period under discussion, interspersing such extracts with official documents in the parts of the book devoted to the years since our national independence.

Doctors Bogart and Thompson divide their material into three periods: the colonial, extending from 1583 to 1808; the formative period between 1808 and the Civil war; and the era of expansion that began with Lee's surrender and extends to our own time. In each of these periods the selections made by the authors group themselves around seven main topics, namely: (1) agriculture, (2) manufactures, (3) tariff, (4) commerce and transportation, (5) money and banking, (6) labor, and (7) movements of population. The emphasis placed upon each of these subjects changes, of course, from period to period; for example, commerce has much more space devoted to it in the first period than in the third and conversely the movement of population of necessity receives the most attention in the third and least in the first.

In the choice of subject matter, in its arrangement and in its apportionment, the authors have accomplished their task admirably, with the result that the book as a whole and upon each of its eight hundred and fifty pages is a valuable contribution to the teaching profession.

MALCOLM KEIR.

University of Pennsylvania.

ELY, RICHARD T. *The Outlines of Economics* (rev. and enlgd. ed.). Pp. xiii, 769. Price, $2.10. New York: The Macmillan Company, 1916.

The third edition of Professor Ely's much used text is now available. The past eight years have been fruitful of changes in economic thought and in economic activity. It was to take account of these that the present revision was undertaken. This has involved the rewriting of many parts of the work. The discussion of underlying principles has been expanded; two chapters—on Business Organization and on Economic Activities of Municipalities—have been omitted as such; one on Labor Legislation has been added, and the sequence of others has been altered. All of these changes make for greater unity of treatment in a work that already showed distinctively serviceable qualities.

R. C. McC.

POLITICAL SCIENCE

BARD, HARRY ERWIN. *South America. Brief Outline of Study Suggestions.* Pp. 68. Price, 60 cents. Boston: D. C. Heath and Company, 1916.

In a small volume of sixty-eight pages Dr. Bard has prepared a most useful outline or syllabus for the study of Latin-American political, economic and social conditions. The greater part of the book is devoted to a carefully selected bibliography which will be of much service to that rapidly increasing body of citizens

who are interested in learning something about the physical and intellectual environment of the continent on which they are living. This little book will stimulate an interest in the more careful and serious study of Latin-American institutions.

L. S. R.

CARLYLE, R. W. and CARLYLE, A. J. *A History of Mediæval Political Theory in the West.* Volume III, (from the tenth to the thirteenth century.) Pp. xvii, 201. Price $3.00. New York: G. Putnam's Sons, 1916.

This volume keeps up the standard of those preceding. From a large and confused mass of material the author has sought to separate the ideas which became dominant in the political thought or pointed the way to new developments in Western Europe from the tenth to the thirteenth century.

The first portion of the book outlines the influence of feudalism on political theory. Contrary to the prevailing belief the author maintains feudalism did not check the advance of political thinking. It emphasized the subjection of the entire community to law, the contract relation between lord and vassal with its rules binding both parties—ruler as well as ruled. The idea of a loyalty to the king, above the lord was an important factor in the rise of nationalistic thinking.

The second part of the book deals with the relations of the theories of natural law, equality and the doctrine of the divine right of political authority. It is shown that the real meaning of the latter is that it is the divine function of political authority to maintain justice. Law is the embodiment of justice. These statements are the premises to the final conclusion that the relation between ruler and people is contractual and involves a mutual obligation to maintain justice and law.

C. L. J.

DAVIDSON, WILLIAM L. *Political Thought in England.* Pp. 256. Price, 50 cents. New York: Henry Holt and Company, 1916.

This work is made up of eleven suggestive chapters. The introductory one discusses utilitarianism as a philosophy and a movement; four deal with the contribution of Jeremy Bentham, two with that of James Mill, three with that of John Stuart Mill and one with those of George Grote, John Austin and Alexander Bain. Utilitarianism is treated as a modern philosophical theory in ethics and politics which has its roots in the age-long interest in human well-being. This theory found its counterpart in "practical efforts to ameliorate the conditions of human life on rational principles, and to raise the masses through effective state legislation." No more significant and thought-provoking discussion of this movement has been printed than that afforded by this little volume.

R. C. McC.

GROTIUS, HUGO. *The Freedom of the Seas.* (Trans. with a revision of the Latin Text of 1633 by Ralph Van Deman Magoffin, and edited by James Brown Scott). Pp. xv, 83. Price, $1.00. New York: Oxford University Press, 1916.

McLAREN, W. W. *A Political History of Japan During the Meiji Era, 1867–1912.* Pp. 379. Price, $3.75. New York: Charles Scribner's Sons, 1916.

The title of this book appears to be more or less of a misnomer. It is not so much a general political history of Japan during the Meiji Era as a history of certain political tendencies and of such political institutions as the Daijokwan (Council of State), the Privy Council, the various Cabinets, and (since 1890) the numerous sessions of Japanese Diets.

The work is divided into two parts. Part I, entitled "The Reconstruction Period" includes chapters on The Restoration Movement, The Abolition of Feudalism, The Reconstruction of Government, and so forth. Part II, on "The Parliamentary Régime" apparently deals with such topics as The Chino-Japanese War, The Russo-Japanese War, The End of the Meiji Era, etc. But the reader will find that these chapter-headings serve to mark off periods of time rather than as indices of the subject matter.

To those acquainted with Professor McLaren as a man or with his work as a scholar, this volume will be somewhat disappointing. His knowledge of the subject is undoubtedly thorough and comprehensive, but it is here presented in a particularly dry and unattractive form. For example, each cabinet change is carefully chronicled and the work of each session of the Diet accurately summarized. Besides, though the tone of impartial treatment is maintained throughout, the work is not free from a very pronounced anti-Japanese bias.

The book is not without its merits. The author is without illusions regarding the democratic or representative character of Japanese institutions or the pacific tendencies of the Japanese peoples. Its main thesis is perhaps that the Japanese are an essentially militaristic nation led and controlled (and it should be added, partly held in leash) by a bureaucratic clan oligarchy. The history and characteristics of this oligarchy during the Meiji period are very carefully traced. There is perhaps too much assumption insufficiently supported by evidence, but there can be no question of the substantial accuracy of the author's descriptions of political corruption and the evil tendencies inherent in clan government. Whether his assumption of a well-defined, unscrupulous and aggressive foreign policy in respect to China is equally well-founded remains to be demonstrated or disproven by future events.

AMOS HERSHEY.

Indiana University.

MADSEN, A. W. *The State as Manufacturer and Trader.* Pp. ix, 281. Price, 7 s. 6 d. London: T. Fisher Unwin, 1916.

The purpose of this monograph is apparently to show the defects of government-managed industries, and so far as tobacco manufacture is concerned, the effort is entirely successful. The author presents brief sketches of the State tobacco monopoly in France, Italy, Austria, Japan, Spain and Sweden. He shows the financial results, the popular verdict on the quality of goods produced, and the unbusinesslike management of the public authorities. Outside of France his sources of information seem to have been meager, but there is undoubtedly an unanimous verdict against government control in all the countries treated.

It is unnecessary to emphasize the point that the author's conclusions, founded on a single industry, are not to be applied without reserve to all government undertakings.

J. T. Y.

MILLARD, THOMAS F. *Our Eastern Question.* Pp. 543. Price, $5.00. New York: The Century Company, 1916.

HORNBECK, STANLEY K. *Contemporary Politics in the Far East.* Pp. xii, 466. Price, $3.00. New York: D. Appleton and Company, 1916.

Our Eastern Question, a sequel to Mr. Millard's earlier work, *America and the Far Eastern Question*, describes the insatiable ambition, and the limitless aggression, actual and seemingly contemplated, of Japan—especially the purpose or expectation, attributed to Japan, of a conflict with the United States. There is no difficulty in showing by a mere narrative that Japan in her recent dealings with China, particularly the treaty of 1915 and her policy in Shantung, has surpassed even the standards of lawlessness and faithlessness established by the common practice of the European powers in the East. In general, Mr. Millard seems pretty well to have justified also the warning which is his chief purpose. His indictment of Japan is confirmed by the details of Professor Hornbeck's less argumentative recital of events.

The achievement by Japan of her evident wish to control the economic life of China not through economic merit but by the sword (to say nothing of any further steps along the same path) would evidently constitute a calamity for ourselves and to the human race. In final analysis, the *question* is whether our nation, with its devotion to the ways of peace and its scant appreciation of international relations, is capable of facing boldly and at great probable cost the duty to the world and to ourselves which this situation forces upon us. The hope of Japan consists largely in the belief that we are incapable of rousing ourselves, under any circumstances to such a duty.

Professor Hornbeck has given us an excellent introduction to the subject which gives title to his book, with chapters on the recent political history of China and Japan (including accounts of the chief political groups and parties in each country) and on the mutual relations of these states and their relations to the chief nations of Europe and America. Appendices in each book give a large mass of valuable documents. Mr. Millard's work is seriously defective in having no sort of index and a very summary table of contents.

A. P. WINSTON.

Washington, D. C.

PORTER, ROBERT P. *Japan: the New World Power.* Pp. xxiv, 789. Price, $2.50. New York: Oxford University Press.

In 1911 Mr. Robert P. Porter published *The Full Recognition of Japan* for the purpose of giving an account of the political and economic history of Japan down to the time when it was accorded full rights of sovereignty by the powers of the world. The present book upon *Japan: the New World Power* is a revision of the previous work and contains the record of the progress made by Japan since 1910.

Any single volume that tells the whole story of Japan, past and present, geographic, political, economic and social, must necessarily deal more or less superficially with the subjects considered. The present volume, however, contains a good selection of material and every chapter is packed full of pertinent data. Any one desiring to make a special study of Japan will do well to begin with a survey such as Mr. Porter's volume presents. There are two good maps and a useful index. The volume is well-balanced, interesting and instructive.

E. R. J.

SOCIOLOGY

CONKLIN, E. G. *Heredity and Environment in the Development of Men.* (2nd ed.). Pp. xvi, 550. Price, $2.00. Princeton: Princeton University Press, 1916.

Barring a few new diagrams and changes in a couple of chapters, this edition is practically the same as the first. The author is to be congratulated that a new edition has been called for so soon. The volume has proved extremely useful in classes interested in studying social backgrounds and to a large group of readers who have wanted to know something of present biology.

C. K.

GRANT, MADISON. *The Passing of the Great Race.* Pp. xxi, 245. Price, $2.00. New York: Charles Scribner's Sons, 1916.

The great race, whose ultimate disappearance the author fears, is the tall, long-headed, blond, of northern Europe, called the Nordic. He feels that in Europe and America the short, dark Mediterranean race, and the taller, round-headed Alpine race are coming to the top, while the more highly specialized and more energetic Nordic is losing. While this viewpoint is by no means new, it has never been better presented. Of special value is the historical sketch of the appearance and distribution of these three great races in Europe. Brevity often forces a more dogmatic opinion than the author probably holds, but so many extreme statements are made that the reader often wonders what evidence there is. Little mention is made of other writers, and even in the bibliography the names of Ammon, Lapouge, Reibmayr, Schallmaier, who have advocated similar claims, and opponents like Finot and Novicow, are omitted. In spite of many defects the position of the author has much to commend it. The volume should be studied by all who are interested in the future of our own country, and in democracy at large.

C. K.

OLIVER, SIR THOMAS. *Occupations from the Social, Hygienic and Medical Points of View.* Pp. x, 110. Price, $1.80. New York: G. P. Putnam's Sons, 1916.
KOBER, GEORGE M. and HANSON, WILLIAM C. (Ed. by). *Diseases of Occupation and Vocational Hygiene.* Pp. xxi, 918. Price, $8.00. Philadelphia: P. Blakiston's Son and Company, 1916.

Widely differing in content and aim, these two volumes indicate the rapid growth in appreciation of the dangers to health and common welfare presented by

many of our industrial processes. The first volume, by the author of one of the standard works on the subject (*Diseases of Occupation*), treats in most readable fashion of the air we breathe, the influence of workshops, the relation of work and efficiency, provisions for the health of the worker, the choice of careers, the different reactions to industrial processes and poisons, the choice of a career and the dangers of gases and electricity. It will prove valuable and interesting to public health workers, and will give much information to the general citizen who wants a bird's-eye view of the subject.

The second volume is the largest and most complete handbook the writer of this note has seen. To it some twenty-nine men and women from Europe as well as America have contributed, in addition to the editors. Among these are not only physicians and teachers but engineers, statisticians, public health officials and social workers. Each topic is discussed in detail and definite medical suggestions are made so that it becomes at once a valuable handbook for the practising physician. The material is presented in such fashion that it becomes likewise an indispensable reference book for all who are interested in manufacturing and the influence of industrial life on social conditions.

The book is divided into three main divisions. In the first we find the discussion of Specific and Systemic Diseases of Occupation, Fatigue and Neuroses, Occupational Affections of the Nose, Mouth, Throat, Eye and Ear (414 pages). Part II deals with the Etiology and Prophylaxis of Occupational Diseases, Vocational Hygiene, including the liberal professions as well as farmers and general manufactures (346 pages). Part III considers The Function of Clinics in the Prevention of Occupational Diseases (with an account of the Clinic at Milan), Statistical Studies and Legislation and Governmental Study for the Prevention of Occupational Diseases.

It is impossible in the space assigned me for this note to do more than thus hint at the contents. Though not a medical man, I have found great pleasure and profit in the hours spent in reading this volume and in looking up many points on which I desired information. It is a storehouse of knowledge and will be immensely useful to the teacher of economics and sociology, to the business man, and to insurance officials, as well as to those in charge of public health work or the care of the sick. It deserves a place in every college or public library.

CARL KELSEY.

University of Pennsylvania.

PAYNE, GEORGE HENRY. *The Child in Human Progress.* Pp. xix, 400. Price, $2.50. New York: G. P. Putnam's Sons, 1916.

The author began to study the origin of the child protective movement in the United States, but continued until he had studied the attitude toward children in the ancient Far East, in Egypt, Arabia, Assyria, Greece, Rome, medieval and modern Europe, colonial and nineteenth century America and among some primitive peoples. He closes with a sketch of the Society for the Prevention of Cruelty to Children of New York. While the book is practically limited to a description of the various forms of neglect, cruelty and abuse from which children have suffered, it nevertheless gives to the student of child welfare a historical perspective which no other book has given.

The book does not attempt to trace development in any systematic way except by the method of citation and brief discussion of a multitude of writers in many lands and ages, each of whom describes in concrete terms the treatment which children of his day received. From such data, however, the reader can see for himself the changes in attitude and feeling toward children, on which foundations all efforts toward the positive and constructive phases of child welfare have been based.

For its selected bibliography and specific citation of contemporary writers the book is especially valuable.

H. W. T.

WOLFE, ALBERT B. *Readings in Social Problems.* Pp. xiii, 804. Price, $2.80. Boston: Ginn and Company, 1916.

The social problems discussed in this book of readings are five-fold: immigration, marriage and divorce, the woman problem, the negro problem, and an interrelated group of population problems. The latter includes such subjects as the Malthusian theory of population, the declining birth rate, socialism and population, eugenics, infant mortality, and the ethics of population policies. The editor's comments introduce the discussion of each problem. References are given at the close of the discussion of each specific topic. These bibliographical references are well chosen and usable.

The difficulties inherent in selecting readings for such a range of fundamental social problems are apparent. But little space can be devoted to some phases of a topic which deserve a more comprehensive discussion. Sometimes interrelationships can only be touched upon. For example, the close nexus between the marriage and divorce situation and the economic and social status of woman can hardly be developed and emphasized in the logical manner which it deserves where different authors are discussing detailed limited fields of the general problem. However, such difficulties are inherent in a book of readings and the comments of the editor in introducing each set of problems are helpful. Moreover, the general excellence of the selections will lead the thoughtful reader to see the fundamental relationships of these various problems.

J. G. S.

REPORT OF THE BOARD OF DIRECTORS, YEAR ENDING DECEMBER 31, 1916, AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE

I. Review of the Academy's Activities

The gravity of the domestic and international problems confronting the country demonstrates clearly, if further demonstration work were necessary, the importance of the service which an organization such as the Academy is called upon to perform. The international situation confronting the country is in many respects so novel, involving so many problems which have heretofore been far from the sphere of thought of the American people, that it is a matter of vital importance that these questions be subjected to the most careful and searching scrutiny, and that the best thought on the subject be made available to the people of the country. Vital as our present international problems are, they are hardly less important than the new domestic questions which the country is called upon to solve. While these questions have in some respects been rendered more acute by reason of the great war, they would have demanded early solution even if the war had not taken place.

An organization such as the Academy cannot take its mission too seriously; in fact, while the Academy is one of a large group of national associations, devoting exclusive attention to the consideration of the great public questions confronting the country, it can easily lay claim to being the leader among these organizations, owing to its breadth of scope and to the fact that it enjoys the coöperation of so large a number of scientists and thinkers in foreign countries. I am sometimes inclined to doubt whether the members of the Academy fully realize the difficulty and delicacy of the task confronting our editorial council. They must attempt to foresee the questions which will be in the foreground of public attention one and even two years hence, in order that the members of the Academy may have before them the best thought on the subject which the nation is called upon to face. We all owe a debt of gratitude to Dr. King and to his associates on the council for the extraordinary efficiency and foresight they have shown in the conduct of the Academy's publication work.

During the past year we again have had requests from a number of our members to undertake the organization of local centers in different parts of the United States. Your Board has called attention to this question on several occasions and feels that it is only a question of time when the Academy will have to undertake such a plan. This will involve a far more elaborate organization than we have at the present time and will add very greatly to the responsibilities of those directing the Academy's work.

Your Board again desires to call attention to the pressing needs of an Endowment Fund, which will enable the Academy to conduct investigations on a much larger scale than has heretofore been possible and will also enable us to secure the Academy building of which we stand in such great need.

II. PUBLICATIONS

During the year 1916 the Academy has published a series of volumes which have brought together the best thought of the country on the important problems with which these volumes deal:

January—National Industries and the Federal Government
March—Public Administration and Partisan Politics
May—Personnel and Employment Problems in Industrial Management
July—Preparedness and America's International Program
September—New Possibilities in Education
November—America's Changing Investment Market

III. MEETINGS

During the year 1916 the Academy has held the following meetings:

January 29—Some Aspects of the Present Situation in China
February 19—Transformation of Rural Ireland
Social Work in Ireland
April 28–29 (20th Annual Meeting)—What Program shall the United States stand for in International Relations?
November 10—The Purposes and Ideals of the Mexican Revolution
December 16—The Real Significance of Preparedness

IV. MEMBERSHIP

The membership of the Academy on the 31st of December, 1915, was 5,866, with a subscription list of 924. Of the 5,866 members, 1,328 are residents of Philadelphia, 4,291 of the United States outside of Philadelphia, and 247 foreign. Of the 924 subscribers, 4 are from Philadelphia, 833 from the United States outside of Philadelphia and 87 from foreign countries. Compared with the membership on the 31st of December, 1915, we find that in the Philadelphia membership there is a gain of 109, in the membership in the United States outside of Philadelphia 220, and in the foreign membership 15, or a total gain of 344. In the subscription list there is a gain of 52 in the United States outside of Philadelphia and in the foreign subscriptions 12, or a total gain of 64. The total gain during the year 1916 in the combined membership and subscriptions lists is 408.

During the year the Academy has lost through death 56 of its members, two of whom were life members.

Foreign

Felipe Barreda y Osma
Arthur Orlando
Ramon Ribeyro

Philadelphia

Joshua L. Baily
Clarence L. Butler
Mrs. Herbert Cassard
Henry T. Dechert
Abraham Gruber
William H. Heisler
E. Smith Kelly
M. L. Kohler
David P. Leas
A. B. Loeb
John Pitcairn
Joseph Richardson
S. Ashton Souder
Milton C. Stein

Outside

Wirt Adams
J. H. Brock
Massena Bullard
B. F. Burwell
*J. D. Casasus
Thomas J. Conaty
*Eckley Brinton Coxe, Jr.
M. Lasker
C. A. Locke
Seth Low
E. P. Marshall
Charles F. Mills
Mrs. Susan L. Mills
Rufus J. Palen

* Life member.

Boyd Crumrine
J. A. DeBoer
Sylvester C. Dunham
Frederick H. Eaton
William Seymour Edwards
Isaac Henry Ford
Eliseo Giberga
John Hopewell
Michael Jenkins
David Kay
Edward Kent
Miss Elizabeth G. King
J. Langeloth
John E. Parsons
J. A. Patten
Norman B. Ream
Walter P. Stokes
Frank J. Symmes
Henry H. Truman
J. F. Vaile
E. P. Wenger
Gustav R. Westfeldt
Horace White
Elbert Wing
P. B. Worrall

The death of these members has deprived the Academy of some very warm friends and enthusiastic workers.

During the year the Academy has lost by resignation 457 of its members and 27 subscribers, while 857 members and 91 subscribers have been added to the list.

In addition to the resignations and deaths, there are being held for two years to December 31, 1915, 212 members for non-payment of membership dues. This would further reduce the membership to 5,354, and make the total gain in membership 132.

V. FINANCIAL CONDITION

The receipts and expenditures of the Academy for the fiscal year just ended are clearly set forth in the Treasurer's report. The accounts were submitted to Messrs. E. P. Moxey and Company for audit and a copy of their statement is appended herewith.

In order to lighten the burden of expense incident to the Annual Meeting a special fund of $1,400 was raised. The Board takes this opportunity to express its gratitude to the contributors to this fund.

CONCLUSION

One of the purposes which your Board has constantly kept in mind has been to bring our members into closer relations with one another. Through such close relationship the Academy can greatly strengthen its national influence. Our members, both in this country and abroad, should be made to feel that they are, in a sense,

representatives of the Academy and fully to discharge their obligations toward the Academy should make themselves centers of Academy influence. We must build up a great coöperative organization for the education of public opinion. With each year we are coming nearer to this goal but we can only reach it through the devotion and enthusiasm of our members.

Your Board desires to take this opportunity to express deep appreciation and gratitude to that increasing body of Academy members, who are giving so much time and thought to the work of our organization.

January 11, 1917.

CHARLES J. RHOADS, ESQ., TREAS.,
American Academy of Political & Social Science, Philadelphia, Pa.

Dear Sir:—We herewith report that we have audited the books and accounts of the *American Academy of Political & Social Science* for its fiscal year ended *December 31, 1916.*

We have prepared and submit herewith statement of receipts and disbursements during the above indicated period, together with statement of assets as at December 31, 1916.

The receipts from all sources were verified by a comparison of the entries for same appearing in the Treasurer's cash book with the record of bank deposits and were found to be in accord therewith.

The disbursements, as shown by the cash book, were supported by proper vouchers. These vouchers were in the form of cancelled paid checks or receipts for moneys expended. These were examined by us and verified the correctness of the payments made.

The investment securities listed in the statement of assets were examined by us and were found to be correct and in accord with the books.

As the result of our audit and examination we certify that the statements submitted herewith are true and correct.

Yours respectfully,
EDWARD P. MOXEY & CO.,
Certified Public Accountants.

Balance Cash on Hand January 1, 1916			$5,594.10
Receipts			
Annual Subscriptions		$24,388.23	
Life Membership		400.00	
Special Contributions		1,493.00	
Subscriptions to Publications		4,082.65	
Sales of Publications		4,388.23	
Income from Investments		4,043.75	
Interest on Deposit		139.07	
Miscellaneous Receipts		184.02	
Exchange of Securities		150.00	39,268.95
Total Receipts			$44,863.05
Disbursements			
Office Expense:			
Office Salaries	$4,439.75		
Supplies, Repairs and Rental	295.98		
Stationery and Printing	266.10		
Telephone and Telegraph	85.37		
Postage	537.87		
Freight, Express and Carfares	8.21		
General Expense	109.52	$5,742.80	
Philadelphia Meetings:			
Salaries	$110.00		
Hall Rents	510.00		
Stationery Supplies, Engr. and Printing	776.58		
Clerical Services	67.03		
Expense of Speakers	625.23		
Postage	289.89		
Telephone and Telegraph	30.15		
Carfare, Newspapers and Sundries	6.73	2,415.61	
Publicity Expense:			
Salaries	$1,340.68		
Pamphlets, Cards and Advertising	496.34		
Postage	498.06		
Stationery and Repairs	321.55	2,656.63	
Publication of *Annals:*			
Salaries	$3,483.10		
Printing	10,297.17		
Reprints	1,019.51		
Binding	681.90		
Postage	1,322.18		

Advertising	$312.90		
Stationery Supplies and Repairs	856.24		
Carfare, Express and Sundries	177.93		
Telephone and Telegraph	108.43		
Storage and Insurance	62.69	18,322.05	
Investments Purchased	$9,855.00		
Interest Premiums and Commission	15.63	9,870.63	39,007.72
Balance December 31, 1916			$5,855.33

ASSETS

Investments

$5,000.00	Baldwin Locomotive Works 1st Mtg. 5's—1940—M. & N.	$4,975.00
10,000.00	Canadian Pacific Railway Equipment Trust 4½'s, Ser. T—1928—J. & J.	9,701.25
5,000.00	Chesapeake & Ohio Railway Equipment Trust 4½'s, Ser. H—1922-1924— J. & D.	4,929.52
5,000.00	Choctaw, Oklahoma & Gulf R. R. Co. Gen'l 5's—1919—J. & J.	5,000.00
5,000.00	City of Macon, Ga. Water Works 4½'s—1932—J. & J.	5,000.00
5,000.00	Lake Shore & Michigan Southern Ry. Co. Deb. 4's—1928—M. & S.	4,801.25
5,000.00	Lehigh Valley Transit Co. 1st Mtg. 4's—1935—M. & S.	4,387.50
3,000.00	Market Street Elevated Passenger Ry. Co. 1st Mtg. 4's—1955—M. & N.	2,786.25
3,500.00	Mortgage Note, C. R. McFarland, Tampa, Fla. 3 yrs. at 6% dated Dec. 15, 1909	3,500.00
5,000.00	New York and Erie Railway 2nd Mtg. 5's—1919—M. & S.	5,000.00
4,000.00	New York and Erie Railway 3rd Mtg. 4½'s—1923—M. & S.	3,955.00
5,000.00	New York Central & Hudson River R. R. Deb. 4's—1934—M. & N.	4,640.00
3,000.00	Penna. & New York Canal & R. R. Co. Cons. Mtg. 4½'s—1939—A. & O.	3,000.00
3,000.00	Pittsburg, Bessemer & Lake Erie Cons. 1st Mtg. 5's—1947—J. & J.	3,000.00
3,000.00	St. Louis & Merchants Bridge Co. 1st Mtg. 6's—1929—F. & A.	3,000.00
3,000.00	St. Louis, Iron Mountain & Southern Ry. Gen'l. Mtg. Land Grant 5's—1931—A. & O.	3,000.00

5,000.00	West Chester Lighting Co. ..... 1st Mtg. 5's—1950—J. & D.		$5,000.00
5,000.00	William Cramp Ship & Engine Bldg. Co. ..... 1st Mtg. 5's—1929—M. & S.		5,000.00
5,000.00	New York Connecting R. R. ..... 1st Mtg. 4½'s, Ser. A—1953—F. & A.		4,975.00
5,000.00	Chicago Union Station Company ..... 1st Mtg. 4½'s—1963—J. & J.		4,987.50
5,000.00	Cambria & Indiana R. R. ..... Car Tr. 4½'s, Ser. F—1929—J. & D.		4,867.50
			$95,505.77
Cash:			
	In Academy Office	$200.00	
	In Treasurer's Hands:		
	Centennial National Bank	200.00	
	Girard Trust Company	5,455.33	5,855.33
			$101,361.10

LIABILITIES

None

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REDUCING THE LABOR TURNOVER

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FOREWORD

Labor turnover refers to the hiring and firing of men. By excessive labor turnover is meant the excessive hiring and firing of employes. Speaking broadly, the average concern hires or fires as many people during the year as are on its payroll. This great flow of labor from shop to shop is a serious loss both to employer and employe. Estimates of the cost to the employer of securing, hiring and adjusting the new employe to an organization range from $30 to $500 per individual.

More than this, it makes difficult the formation of an *esprit de corps* in an organization, and makes almost impossible extensive participation by employes in management. The degenerative effects of excessive labor turnover on employes are too obvious to need mention.

The bettering of this condition will require the development of a "fourth arm" of industry, which will specialize in the scientific dealing with personnel as the production, sales and financial departments specialize in their respective fields. The methods of this science are not standardized. This volume is edited with the hope of contributing to the forward movement of this science by presenting a description of the work of some plants or individuals who have paid conspicuous attention to this subject.

I wish to acknowledge my indebtedness particularly to Mr. Boyd Fisher.

JOSEPH H. WILLITS, PH.D.,
Editor in Charge of Volume.

ADVANTAGES OF CENTRALIZED EMPLOYMENT[1]

By E. M. Hopkins,

President, Dartmouth College, Hanover, N. H.

It is not my intention to speak of the advantages of centralized employment work as an untried thing, or even as a new departure. Progress has been so definite along this line that it is becoming the exceptional thing among conspicuously well-managed concerns to find those which have not established functionalized employment departments. There is not a city in the country in which there is not a considerable number of companies of the first importance which have accepted the principles of employment work as of fundamental importance.

Evolution of Centralized Employment

The centralized employment department is the natural successor in the evolution of business from the methods which have been common in business since industry first began to assume its large importance in the world's affairs. In the very beginning labor-saving machinery came in. Somebody invented the loom and set it up in an English kitchen. Then someone figured that, if power could be found, a further advance in production would be made that would enormously increase economic wealth. At this point the centralization of labor-saving machinery became necessary, in order that the sources of power might be accessible. Thus we came to the factory. The first application of power to machinery was the water power; then came the invention of steam and a whole world of possibilities was opened up for the development of the factory system. The first factories were barns and sheds and old houses. Then someone, considerably later, decided that the machinery could be set up to greater advantage in a special building. So production came to the understanding of the importance of factory construction, from which time the study and development of this has been constant.

[1] Address delivered before the Philadelphia Association for the Discussion of Employment Problems, November 8, 1916.

Then, men began to see the advantage in arranging the machinery so as to facilitate routing in the processes of manufacturing. So, in the evolution, scientific management developed. Scientific management is not an arbitrary and machine-like way of doing things, as sometimes it is interpreted to be; but it is rather the recognition that there is one best way of doing each specific thing in the world, and that study and effort to discover that way is well worth while.

Thus through the evolution from labor-saving machinery, sources of power, factory design and scientific mangement, we come down to the latest factor in the development of the competitive method. At the present time there is nothing in particular that one intelligent concern can do over another equally intelligent in the securing of raw materials. There is nothing that one well-administered concern can do that gives it an advantage in policy over another concern equally well-managed. All can buy the same kinds of machinery if they know where to get it; or they can design the same kind. Processes cannot now be kept long entirely secret. Nothing is secure which rests on the assumption that the competitor cannot know how it is done. Thus it has come about that those who want to be put on a permanent basis of profit desire to establish a reputation for intelligent and considerate action which will make people want to stay with them. It is coming to be understood, in other words, that the opportunity for increased dividends and for advantage over competitive concerns, lies largely in the relationship which can be established with the men and women who make up the productive labor force. Thus it is that attention is being not only attracted to, but literally riveted upon, this great unsystematized and long entirely neglected field of problems of personnel.

The movement is under a headway that cannot be stopped; and some concerns who will not openly admit their interest in matters of this sort are in effect, though under different names, earnestly, even if unintelligently, seeking a basis of action which shall remove industrial unrest from their organizations. The one *greatest* problem in American industry at the present time is how to get, and how to keep, a labor supply which will do the work at hand in the best and the most profitable way.

BACKWARDNESS OF AMERICA

We pride ourselves on our industrial progress in the United States, and we are wont to boast of the advantages of our methods over those of other countries. But yet, we have come very late to this problem. The success of Germany in carrying on the present war, in which she has shown such remarkable resourcefulness and such remarkable ability, is due no more to her efficient handling of men and arms than it is due to the fact that she has spent years in specializing on human relations in industry. Social adjustments had been worked out to greater scientific accuracy in Germany than in any other country. England's problem was how to apply the talents and potential ability of her men and women to the stern necessities facing her in problems of production, no less than in matters of military and naval policy. In America at the present time, amid all the shortages that exist, the one great overwhelming shortage is of men and women properly equipped to do the work which is available for this country to do, if only we can handle it.

Two years ago a manager of major rank in a great Philadelphia plant told me: "We are not interested in problems of personnel. We have a lot of work; but there are always more people to do it than there is work; and if those we have do not wish to work under our conditions, they can go, and we will go out and get others." Even so soon the folly of such a remark is apparent. The shoe is on the other foot. The work is available in quantities, but workers can hardly be secured at any wages.

No one knows exactly what will be the result on industry in America at the end of the war. It is a certainty, however, that one of two alternatives will have to be faced: either we are going into an era of unprecedented prosperity, and will continue to need, as we are coming to need now, people who are trained to our work, who are loyal to our organizations, and whom we can induce to remain steadily with us; or else we are going into an era of competition and price-cutting, when every element of risk must be eliminated, and when every element of waste must be guarded against, when manufacturers must come down to the basis of utilizing every advantage at hand.

A Chicago man said to me recently:

Up to a few weeks ago I insisted that there was nothing in centralized employment for us. But I came to the conviction that there was a true analogy in this to our purchasing department. Two years ago we put a man in charge of purchasing simply our printed forms; and I found a few weeks ago, upon investigation, that this centralized responsibility has saved us over $35,000 in two years. Somehow, out of this I saw the argument for the employment office. If the removal of responsibility for printed forms from our department heads accomplished so much, what wouldn't happen if in like way we removed responsibility for the purchase of our labor?

ATTITUDE OF DEPARTMENT HEADS

Recognition has to be given to one thing in considering the establishment of such a department. For some reason the average man feels that his bailiwick is invaded unduly if in any way authority is taken away from him in regard either to the hiring or to the discharge of employes whose work he is directing. It is almost impossible to convince foremen or department managers that many men in their places who have held ideas like theirs have come to feel that they have been relieved of a burden of whose weight they had no idea while it was upon them. Many a man has come to feel relief at the opportunity to apply himself to the specific work in which he was skilled, as he never had the opportunity to do while held responsible for keeping up his own labor supply. Experience justifies the argument that a well set up employment department, tactfully managed and administratively endorsed, will vindicate itself to the worst skeptics, if it is but given time.

We must not lose sight of one matter, which is a weakness not yet corrected in modern theories of organization, using the term organization in its technical sense. The transition from the old-time unit type to the functional type of organization has brought in its train of major advantages certain weaknesses which remain to be corrected. There is always the tendency, in this newer form of organization, that goes inevitably with specialization, to narrow the range of solicitude on the part of the various executives of lesser rank and their respective subordinates, from concern for the company's interests as a whole to concern simply for the functionalized department. This is a natural outcome of the period when maximum emphasis had of necessity to be placed upon departmental boundaries in order to establish the system. But once established, the system requires that connection of one man with another

should be not simply by route of the charted lines of an organization sheet, but that all who have to do with the company's business should feel definite relationships with all others of the force, to an extent that each should have concern that all responsibilities of the company should be met in whatsoever functionalized department they might appear.

The one great weakness that the functionalized organization has failed to correct is a tendency to breed executives without antennae for the interests of respective organizations as wholes. It is, of course, a fault that can be corrected only slowly, and even then must be a matter of the spirit in which the worker is bred rather than the way in which organization should be outlined on printed charts.

It is all very difficult and hard to get at; but it is all tremendously involved in the question of how to create the new spirit of *esprit de corps* and coöperation, which successful industries will have to create. It is studies such as are involved in questions of this sort that become a vital part of the comprehensive work of a well designed employment office; and it is by such avenues that it can become of maximum usefulness to heads of concerns.

Another difficulty is the fact that in concerns where broad and intelligent policies prevail at the top, and where systems are installed looking to the betterment of the lower grade positions, there is such frequent failure to transmit the spirit behind these things beyond a small group at the top who know just what they are all about. Sometimes this group attempts to familiarize a somewhat larger group, subordinate to them, with the motives and the spirit behind proposed projects; but usually the scheme never gets down to the mass of productive workers in any form that carries conviction to their minds that there is a broad conception behind it. Therefore, not knowing what these things are all about, they become skeptical; and in this frame of mind the original good is so completely neutralized that there is little advantage to the company in having had the broad conception at the initiation of the plan. The point I am trying to make is, that too often there seems to be a complete insulation between the people at the top of the company and those at the bottom, due to the mental or spiritual inability of sub-managers and sub-foremen to transmit the spirit of men higher up to those lower down. It is here again that the

intelligently administered employment office can become of value entirely disproportionate to any cost involved in maintaining it.

RELATIVE IMPORTANCE OF EXECUTIVES AND WORKING FORCE

There is another fallacy to be overthrown, and that is the old-time autocratic and arbitrary theory that the subordinate productive worker exists to supplement the efforts of the executive over him. It is now coming to be recognized that executives exist rather to correlate and supplement the efforts of the productive force. One cannot argue this case as a whole without going into an immense amount of detail, but superficially it is true that the world's work would be far more completely done if all executives were to be wiped out of existence at one stroke than if all productive labor were to be.

If we are forced to accept the hypothesis of the complete elimination of one group or the other, I think that most of us would spare the executives before we would the productive force. Men in the highest positions, however, will concede this far more quickly than the foreman who has just been promoted from the ranks.

There is an assumption that needs to be guarded against in any consideration of the establishment of an employment department, namely, that employment is a term covering an occasional thing. The attitude has been too frequent that the whole problem was to get the man in, and that once in the system he is in a hopper and as the mill grinds he will be ground out either as wheat or chaff. Leaving the ethics of the matter entirely aside, we cannot as a matter of profits continue to have so much lost as chaff. It costs too much continually to feed the hopper. Having secured the force, there is financial advantage to a company in keeping it and in maintaining it under such conditions that the individuals composing it will be unwilling to leave. There is nothing visionary about this proposition. It comes down to the fundamental basis of the financial welfare of the concern.

SUPERVISION AFTER HIRING

This brings up the point of the function of the employment department after the labor force is engaged. The curse of industry in the past has been the impersonal nature of its administration. This is a very real danger at the present time in the development

of the theory of the employment department. This department, more than any other, cannot afford to become impersonal. It is, in my estimation, the danger of the whole tendency of the present day to judge by prescribed tests in regard to the retention or rejection of workers either on the job, or in regard to those being newly sought.

But having secured an individual to do our work, and having got him established on a basis satisfactory to the department into which he goes, what, then, is the realm of the employment department? There can be no question that the respective department heads must be the final judges in regard to the grade of work and the desirability of retention of the individual employe under them. They know the work to be done. However, I believe that it is a kindness to them, as well as to the people under them, that some department outside of theirs shall continually watch their policy and appraise it by outside standards in relation to its policies with the people working therein.

There is a factor involved in many a discharge which never comes to be known by the man who cuts the relationship between the company and the individual. If the people of our productive forces are going to work with enthusiasm and loyalty, they must have confidence that discharge is not coming to them because of conditions over which they have no control, and that a peremptory dismissal shall not come to them for temporary impairment of ability which has been preceded by faithful and painstaking work. There must be some avenue through which information can be secured as to the justice of the action of the man above, as well as to the basic reason for the fault of the man below. If it is discovered that a man has fallen off in his work, due to some temporary condition of such a nature as would have impaired the work of the highest executive as well as that of the lowest operative, the man down the line who receives the discharge is going to resent bitterly the lack of opportunity for him to bring out the extenuating circumstances, which he knows would be so plainly evident in the case of the man of higher rank. For some such reasons as these an employment department ought to have a definite right of access to individuals throughout the plant. It is hard to estimate what a brake on unreasonable discharge may be established by such a contact. Hardly a concern at the present time would think of making pay-

ment on its checks legal without a second signature; and yet industry goes on dealing with the lives of men and women on the basis of individual caprice on the part of its less intelligent executives.

The so-called welfare work, the rapidly increasing province of accident prevention and health preservation, and the policy of special training which we somewhat euphemistically call educational work, are all details of the general purpose which ought to lie under the establishment and maintenance of an employment department. Such a department should report to the head of the business. If it is not important enough to do this it ought not to be established.

POSITION IN THE ORGANIZATION

Such a department should be given the responsibility of securing the labor for the different departments of the plant; and the procedure should be established that men and women be secured through this department until it becomes evident that it cannot render value. In my estimation such a department does not need arbitrary power, but it does need a sympathy of understanding from those at the head of the business, and an endorsement which shall give it standing with those of lower rank. Such a department should be given access enough to all portions of the plant so that it may effectually act as a check on the non-comprehending department head who has no ability or intention to do anything except to exercise arrogantly such power as inheres in his position. The employment manager exists not so much to say that things shall be done or that they shall not be done, as he does to know what is taking place and the reason therefor.

Such a department cannot be defined as any specific thing in any specific concern, because it will differ so much in one from another. But the fundamental purpose will be much the same. It ought to be the first aid for getting the best people for the positions; and it ought to be the big brother of all the department heads in their effort to keep and train their men so that these shall be of greatest use to themselves, to the concerns involved, and to the community.

Is there some process available in your organization, by which those men who are worthy can be given an opportunity to work with

some security of tenure and have opportunities to make themselves of added value to the company? If so, the centralized employment department should find it. The successful industry of the future is going to be set against a social background in which a healthier status will exist not only for men's bodies but for men's minds. It is in developments such as these that the centralized employment department can be of vital advantage. And the advantage is not an intangible one, for it will be found to translate itself definitely and permanently into dollars and cents.

HOW TO REDUCE LABOR TURNOVER

By Boyd Fisher,

Vice-President, Detroit Executives' Club.

No one knows how much it costs to break in new men. The most conservative estimate of any authority is $40 per man, but this, as well as every other estimate, is, after all, only an estimate. No one has yet used an exact cost system for recording the waste of unnecessary hiring and firing. I myself prepared such a system and submitted it to the employment managers' division of the Executives' Club last September. As yet no one has put it into effect, although several plants have promised to do so as soon as conditions warrant.

The Great Cost of Labor Turnover

Aside from the rather careful estimates made by W. A. Grieves and Magnus Alexander, we have only occasional flashes of evidence as to the great cost of labor turnover. One of the most startling evidences, which has come to my attention, may be gleaned from the report of a meeting of the production methods group of the Executives' Club on September 20, 1916.

Mr. J. T. B. Rheinfeldt, head of the manufacturing standards department of the Packard Motor Car Company, had explained the methods by which his department had rated the expected capacity of every machine and production center in that great plant. He gave out the information that the ideal capacity was 25 per cent higher than the expected capacity—that is, his company has 25 per cent more equipment than would be necessary to turn out the work, if it were not necessary to allow for delays, breakdowns and low-speed production.

I now quote from the minutes:

Mr. Beatty asked if the standard time allowed to the men were included in the 25 per cent allowance or not.

Mr. Rheinfeldt said that whenever a method was changed, a new time study was made. The allowance of 25 per cent was a blanket to cover shortages, absence, keeping the machine going, repair, etc.

Mr. Fisher asked how much of the 25 per cent was due to the turnover of labor

—that is, if there was no absence to be contended with, how much this 25 per cent could be reduced.

Mr. Rheinfeldt said that if the labor turnover were zero, the factor could be eliminated entirely, as the allowance on the time study would care for the repairs, breakage of tools and machines, etc.

Think of this for a moment. The physical equipment of the Packard Motor Car Company is worth, in round figures, $9,000,000. If the turnover of labor were reduced to zero, this huge investment could, in Mr. Rheinfeldt's opinion, be reduced by $1,800,000. The interest at 6 per cent on this amount of money is $108,000 per annum.

Nor is this all. Is it not fair to assume that labor cost would also be reduced 25 per cent if there were no turnover? If so, out of 12,000 employes the wages of 2,400 men and supervisors, anything from a million and a half to two and a half million dollars a year, could be wiped out.

Now a word about the reliability of the above figures. They are not worth very much. In the first place, Mr. Rheinfeldt may have been in error in estimating his ideal capacity. He may have overstated the case, too, when he gave it as his opinion that a complete elimination of turnover would eliminate the 25 per cent extra capacity added to the standard time allowance. Furthermore, I have purposely avoided giving exact figures on equipment investment and on the wages of one-fifth of 12,000 employes. I do not want the figures on cost of turnover in the Packard plant to seem to be exact.

But I do want to enforce this point. The Packard employment department is one of the oldest and best conducted in Detroit. It has already effected vast savings in cost of turnover and yet the head of the standards department, the man who, with his assistants, sets all standard working times in the plant, estimates that new and inexperienced workmen reduce the speed of production so much that a 25 per cent allowance of equipment, buildings, direct labor and supervision must be made.

Figure what it would mean to your company annually to add 25 per cent to your cost to break in new men. Do you know that it doesn't? We have no true figures for cost of turnover as yet. Until we get them we must rest our case upon such indirect evidences as Mr. Rheinfeldt's startling estimate.

We can also gather other evidences of the cost of breaking in new men by a study of plants which have kept a steady force, and by comparing production records per man at the beginning and at the end of the periods during which the reduction of labor turnover took place. This, however, is not a very reliable guide, because a good part of the increased production might have come from the introduction of more scientific methods. It is significant, however, that every plant in Detroit that has reduced its turnover of labor in the last year has increased output per man. In some cases it has doubled.

REDUCTION OF TURNOVER IS PRACTICABLE

It is not necessary, in fact, to prove that losing men costs money. There is a very general agreement upon that point and there is also a pretty general agreement upon the possibility of ascribing to success in creating a stable force some of the increase in production which appears concurrently. Employment managers, I take it, desire not so much to be persuaded that it is worth while to discover methods of reducing the needless exchange of employes as to have proof that they can keep men on the job by definite methods which have succeeded in other plants.

I have some very interesting figures on the reduction of turnover in Detroit plants during the last year, or thereabouts. Labor conditions during this time have been very disheartening, and, in all firms where employment departments have been established for a long time, the exchange of employes, in spite of intelligent work, has increased during the last year. This is a very interesting fact when taken in conjunction with another distinct and contrasting fact; namely, that in all plants that have installed employment departments within the last year or more, the turnover of labor has generally declined during this bad year.

Take the Saxon Motor Car Company, for instance. Its employment department has been in full running order only a little over a year and in the first year of its operation it has reduced labor turnover 140 per cent. This figure is obtained by subtracting the turnover figures at the end of the year from the turnover figures at the beginning. The employment manager of this company predicts a 50 per cent further reduction during the coming year, which will be bringing it down pretty low.

Take, again, the Hayes Manufacturing Company, where the employment department was established in April, 1915. In the first year of operation turnover was cut practically in two. And then in the next four months, from April to August, the turnover was more than cut in two again and has been declining slightly ever since. This reduction was accompanied by a 30 per cent increase in output per man. Then there is the Timken-Detroit Axle Company where the labor department has been in operation for sixteen months and where foremen are given a bonus for what is known as "force maintenance efficiency." During these sixteen months, this efficiency has increased 20 per cent. I refrain from giving the figures upon which this percentage is based because the Timken Company does not desire to reveal the exact turnover data.

One of the most remarkable records I know of, with regard to reduction of turnover as the result of the installation of a complete labor department, is that of the Solvay Company of Detroit. The record is so good that I am going to take the risk of quoting the exact turnover figures. The Semet-Solvay (Coke) Company and the Solvay Process Company occupy adjoining factories on the same plot of land but maintain entirely separate managements. Up to the first of June, 1916, the Semet-Solvay Company had an employment department and the Solvay Process Company, on the other hand, permitted each foreman to hire his own men.

When it came to the attention of the management of the Solvay Process Company that they were having labor difficulties which did not appear in the Semet-Solvay, the employment manager in the Semet-Solvay was given entire charge of hiring and firing in both plants. The average turnover for the two plants during the month of May was 10 per cent. In the month of June, after the employment department had taken over the work of the Solvay Company also, the turnover of the two plants dropped to 8.3 per cent. In July it was 8 per cent; in August, 4.1 per cent; in September, 3.3 per cent; in October, 3 per cent; in November, 2.6 per cent; in December, 2.4 per cent. This is the most remarkable record of employment department efficiency that I know of anywhere and when you take into consideration the fact that the average turnover of labor in Detroit was jumping up by leaps and bounds at the same time that the Solvay companies were greatly reducing their turnover, it appears even more surprising.

I have just analyzed the turnover figures for the last year in fifty-seven Detroit plants, and find that they average a little over 252 per cent per plant. This is, of course, very high because labor conditions have been unprecedentedly bad. The figures, however, are not as high as they would be if they did not include the comparatively low averages of plants having employment departments, as well as plants which allow foremen to do their own hiring and firing. An analysis of plants having labor departments against those having no labor department shows that, roughly averaged, the plants having no employment department hired three men to every two hired by those which did have employment departments.

I do not attempt to give more exact figures because I am somewhat skeptical of the correctness of many of the reports which came to me; particularly from plants that have no regular employment department. I suspect that if we had entirely reliable figures from all plants, the record of those having no employment departments would show up even worse in comparison than they do.

A Complete Plan for Reducing Turnover

It would be enlightening, if there were space, to take each individual case of labor turnover reduction and trace out the methods by which this was accomplished. In a fairly short presentation, however, it is preferable to outline a complete scheme for labor turnover reduction based upon the combined experiences of a number of plants having employment departments. I desire, therefore, to offer what appears to be a combination of all the approved remedies for what is sometimes known as the "mobility of labor." Obviously not all parts of the complete scheme can be applied to every plant. And good authorities may feel that some of the methods outlined have no business to be in the scheme at all for any plant.

Permit me at the start a doubtful generalization. A certain manager of a Detroit plant, which had a complete installation of scientific management and which was used as a model for study by all other Detroit plants, left to take over the management of an automobile company in another city. He found the new plant devoid of any semblance of scientific management, and yet for a whole year he did nothing to change the internal methods of this plant. He found upon analysis that 80 per cent of the cost of his product came in the purchase of products made in other plants. Therefore,

in order to reduce the cost of his product he found that he would have to spend most of his efforts in reducing the cost of the products made outside. So it is, I think, with labor turnover. I believe that we may safely say that 80 per cent of the cost of turnover of labor is due to causes that lie outside of direct plant activities; that is, when the workman is off duty.

Now the remarkable thing that is developing in employment work in Detroit is a disposition to tackle the whole job of reformation. Like the automobile manufacturer just referred to, our employers are striving to reduce the 80 per cent item of cost of inefficient labor where the expense is incurred; that is, outside of their own plants. They recognize that turnover of labor is a special phase of the problem of inefficient labor and that the reduction of turnover is only the first step in a process of education and of economic pressure to elevate the standards of workmen. They aim not only to keep workmen, but to develop them. And they are prepared to go as far, even, as the workmen's own home-life to solve their problem.

Much of the impetus to this thorough-going effort comes from Henry Ford. Employers sometimes feel that they have much to forgive in Henry Ford, but most of his fault lies in doing so many things first. One of these is the extension of factory influence into the whole life of the worker. All Detroit plants are beginning to follow him in this, and I honestly believe that they are profiting by his experience, and are taking the best and leaving the worst of his plan. Denied the credit of initiating the plan and free from the fear of precipitating any such startled inquiries as have beset Mr. Ford, they are able to proceed slowly, quietly and cautiously. The results so far have been good.

Miss Ida M. Tarbell came to Detroit prepared to revolt at un-American interference with the private concerns of workers as evidenced by the Ford procedure, and went away convinced in its favor. Of the Ford scheme she said to the Executives' Club, "I don't care what you call it—philanthropy, paternalism, autocracy—the results which are being obtained are worth all you can set against them, and the errors in the plan will provoke their own remedies."

The Relations between Turnover, Inefficiency and Vice

So you will find in my scheme of labor turnover reduction a concrete statement—a bill of particulars, so to speak—of the phi-

losophy of the more progressive Detroit employers. Turnover breeds inefficiency. Inefficiency breeds turnover and the only way to break the vicious circle is to attack them, both at one time, and, for the most part, outside of direct factory activities.

The employment department in this view becomes the vestibule not alone to the factory, but to a better life. The employment supervisor becomes a copartner with the teacher, the minister, the social worker in the business of reforming men. It wasn't Billy Sunday, it was the employers of Michigan that put the state in the prohibition column. They wanted to remove the saloon on the route between home and the factory. For the sake of securing more efficient workmen, our employers and their personal representatives, the employment managers, are fighting for the elimination of vice and gambling through Mr. James Couzens, formerly vice-president of the Ford Company, and now police commissioner. They are fighting for better schools through Mr. Mumford of the Edison, and now president of the school board, and for better city government, more adequate housing, and better street car facilities through the disinterested public services of many busy manufacturers.

Nor do our social reforming employment managers confine themselves to dragnet measures of improvement. The scheme I have assembled is a routine of particular measures involving the doctrines of "from each manufacturer according to his ability" and "unto each workman according to his need." Nearly every measure outlined is actually in effect in some Detroit plant and all of them, based upon experience somewhere, are at least in project.

DIFFERENT REMEDIES FOR TURNOVER

Let us take up remedies for labor turnover and inefficiency under four main headings: *preliminary, fundamental, supplemental* and *provocative* remedies, and speak first of the provocative remedies.[1]

I believe in firing men as a final means of keeping men. We are in danger of getting too sentimental about turnover. We are too likely to regard every man lost as an unwholesome sign. There is a legitimate place yet for the "tin can" and when it is tied to man or beast, it ought to have something in it to make it rattle. But the condemnation that reverberates most noisily is the deliberate un-

[1]See outline of these remedies, pages 29–32.

favorable judgment of one's peers. I believe that every discharge should be certified to by a committee on which workmen are represented. This is my notion as yet, but Dodge Brothers go as far as providing a blue envelope committee, and no arbitrary individual judgment can effect a discharge. Slowness and cautious fairness in getting into action, however, only advertises the final result. When a man goes out of that plant, he isn't summarily kicked out, it is true, but it looks much more impressive to be shoved out slowly by a consensus.

Let us, by all means, have the trump card of discharge in our hand and then strive to win by playing off suit. If it is clearly understood by workmen that the patience of the management is the forbearance of strength and self-control, all our other methods of reducing turnover will gain in effectiveness.

Now, strictly speaking, what I have classed as preliminary measures: namely, a cost system and a record system for turnover, do nothing in themselves to retain a permanent working force. But, without them, the effective measures are not likely to be applied.

A true cost system is an urgent necessity. If it is true, as Mr. Magnus Alexander estimates, that it costs $73.50 to break in a new semi-skilled operative and only $8.50 to take on a new laborer, mere percentage figures for turnover mean very little. I will not go into details at this time but I submit that we should know how much each type of new worker costs, in terms of diminished production resulting and of the excess equipment investment needed, increased scrap incurred and increased supervision and education required. Managers may affect to believe that it costs $400,000 a year to hire 10,000 men, but they won't spend even $50,000 to save that sum until you prove incontrovertibly the actual expense of new men. The thorough-going remedies for turnover are so expensive that until even the most skeptical managers are convinced we shall not get far with our corrective measures.

As for a complete record system, little preachment is necessary. The aim should be twofold. The records should reveal graphically not only the extent but the causes of turnover, and they should reveal the parallelism between high turnover and low efficiency. The basis, of course, is an individual register for each man, so complete that all other reports can be drawn directly off of this. Aside from the usual historical facts, showing dates of employing or transferring,

the starting rates and changes of rates and date of leaving employ, together with original application and examination forms, this individual record should be a chronicle of the workman's progress, on such items as earnings and bonuses, defective work, absences and tardiness, his complaints and those charged against him, a periodic certification by foremen, and, when he leaves, his apparent or declared reasons for going.

The turnover should be analyzed at least monthly, and the record should show: (a) by weeks, months and years, how long quitters have been in the employ, in order to reveal the critical periods when men are most lightly attached to their jobs; (b) by departments, to show what foremen or class of work are most at fault, and (c) by reasons assigned, to show what conditions call for improvement. It should show, also, (d) what operations furnish the greatest mobility, so that, if a cost of new employes has been established for each operation, the monthly losses from turnover can be exactly computed.

Fundamental remedies for turnover differ from what I call supplemental only in relative importance. If you hire men wisely, provide them with steady work at an adequate wage, and refrain from hasty discharges, your turnover will be comparatively low.

The supplemental remedies are refinements designed rather to promote efficiency in the man you keep, than to furnish additional means of keeping them, and are likely, thus, to exercise an indirect influence in reducing turnover.

IMPORTANCE OF CARE IN HIRING MEN

It is almost begging the question to say, hire the right men for the jobs, because, obviously, the right man is the man whom you will like and who will like you. But there is room for so much development here that I know of almost no other remedy that will reach so far. When foremen hire, they grab the first man who shows up, and fire him when he doesn't make good. And a good many employment managers do almost the same thing. In part, this is due to the fact that they haven't the resources to write up exact specifications for all the jobs for which they employ; still more because none of us has thoroughly satisfactory tests of ability and character. But still more it is due to enforced haste in filling requisitions. Foremen, planning department men and managers do not

give the employment department enough notice of men needed. A list of men required for the year's predicated production should be just as much a part of the engineering department's specifications as the blue prints and the routing. It is certainly as easy to predict men required as to predict cost, for without the labor, how can the cost be estimated? And, yet, how many employment departments know two days ahead, even, the men they will be called upon to hire? I say, inform your employment manager as far ahead to supply new men as you inform your purchasing agent to supply material.

With advance information he can build up the right kind of application list. If your files list only men that have applied voluntarily, it will be as unsatisfactory as a list of sales prospects that you might secure without solicitors or advertising.

The best application file is really a prospect file, built up as the result of a census of the workers suited to your plant, in your whole city and particularly your vicinity. The Cole Motor Company of Indianapolis has just completed an inclusive industrial census. The Saxon Motor Company of Detroit tells me that the simple measure that did most to produce its remarkable turnover reductions was the practice of preferring men who live within walking distance of the plant.

With a knowledge of men to be hired, the employment manager can prepare specifications and forms of examination which will do much to eliminate men who would not make good if hired.

Physical examinations are, of course, a necessity in a good system, and they should be tied up with the measures for improving men once on the pay roll, by having the examiner indicate deficiencies to be corrected. But even examinations and such other precautions as visits to the homes of desired applicants, and a checking up of previous records of employment can only be resorted to if ample time for inquiry is secured.

Industrial Education, Advancement and Wages

There is not space in this paper to deal with the question of industrial education, but it should not be overlooked that one does not always need to go outside of his own plant to put on a new man. It is always cheaper to transfer from a less important position an employe who has been in training for a promotion. A work force can be more certainly toned up by educating apprentices and giving a

continuing and broadening education to operatives than by hiring brand new men by any system of careful selection whatever. The growing demands of industry far outrun the supply of skilled workers, and not only to contribute its share of trained people but even to obtain its share, a plant must coöperate in the general educational program.

Now one of the most basic remedies for turnover is the payment of an adequate wage, and this can be urged only upon plants that have taken pains before hiring to ascertain whether the applicant's home life and standards of living, as well as his mental and physical fitness, promise his being able to earn an adequate wage.

By an adequate, I don't mean merely a minimum wage. I mean a good fat wage—one that will clothe, nourish and educate his children as well as feed him up properly. The Visiting Housekeepers' Association of Detroit estimates that the lowest possible minimum income for a family of five is $89.00 per month, and no family in Detroit is wise enough to know how to spend that sum well. Eleven plants in the Executives' Club have undertaken deliberately to see that every workman, taking each case individually, by investigation, is sufficiently supported. Some of them discover that for special reasons some families cannot live on $100 per month. Any number of plants, such as Packard, Cadillac, Solvay and Hudson, not only make general studies of cost of living but particular inquiries, and where necessary, pay off at good discounts the debts of overburdened workers, allowing them to return payment periodically.

In my outline I have indicated a number of ways in which the modern factory management follows up the pay envelope by helping the worker to escape the shark, to purchase wisely, and to stretch the purchasing power of every dollar he earns. Many mutual aid associations and several legal aid bureaus have already been established, and many plants encourage thrift and assist in home building. We not only have seven or eight coöperative stores in process of establishment, but six of them are considering plans to purchase jointly through the Executives' Club. A report on eighty-three successful mutual aid societies has been compiled by Helen Bacon of the Executives' Club staff. It may be obtained for one dollar.

As for the remedy of steady work, you should note that it is just as important to keep piece workers continuously supplied with

work, so that they can earn their expected income, as it is to regularize work from season to season so as to keep a level force. In fact, it is sometimes kinder to men to lay them off outright than to try to keep them while they are earning partial wages. Employment managers cannot do much to regularize production from season to season and from day to day, because these things are largely matters of administrative policy and of factory system, but if they recognize and advertise the importance of these things, they will focus the attention of their superiors upon the necessary remedies.

When I say, finally, under the head of fundamental remedies, don't fire hastily, I mean to urge not only that you curb ill-tempered foremen and curb your own impatience, but I mean, especially, give yourself time to influence men through the slower-acting measures, referred to in this outline under "Supplemental Remedies." It would be of very little avail, either as a means of re-selecting or of disciplining men who had failed in one job, to transfer them from department to department, as the Ford Motor Company, for instance, does with so much patience, unless every day counted not only to give a man new hope but new instruction.

So, I say, start your new men right, promote physical efficiency, foster good habits, make your work an unfolding career, and a sufficient future, and all the time encourage self-expression, not only of complaints but of suggestions and of coöperative interest and activity.

Other Ways to Start Men Properly

To start new men right means not alone to give them a pleasant and encouraging impression of their new work but also to complete the job of hiring them. A man is not really engaged for a job until he is engaged in it, and too often plants throw needless difficulties into a man's path between the time they agree to hire him and the time when he settles down to work. An agreement to employ, in the first place, is not completed until the new man is given a definite guarantee of his starting rate of pay. You cannot be sure of a man's doing anything but spoiling work for a day and wasting your time if you take him on first and then let the foreman settle his rate of pay afterward.

Give your man a definite starting wage, and, so far as possible, a reasonable assurance of the rates to which he will be advanced at

stated times if he makes certain standards of efficiency. Then, if he accepts your job, you can be more sure of him.

But it is just as important to help a man get over his stage fright in tackling a new job. Most men suffer acutely in contact with strange surroundings. Even experienced workers discover unexpected obstacles in new machines, and most new men will be found to have exaggerated somewhat their qualifications in order to be taken on. You, of course, have discounted their statements, but they go to work uneasy in the thought that they have "put something over" on you and are afraid of being found out. Add to this their awkwardness with fellow-workmen and bosses, both strange to them, and their lack of acquaintance with the plant and you get a frame of mind which makes their work of little value to you, and the job seem undesirable to them.

One of the things which stood out in my mind after reviewing the many excellent methods of the German American Button Company of Rochester was the considerate way this company has of introducing new employes. New people are asked to come at an appointed time later than the hour when work starts, and are introduced by a representative of the employment department to their fellow-workers and made acquainted with the rules, the conveniences and the special attractions of the plant. A fellow-worker is commissioned to take them to luncheon the first day, and special queries are answered. It is important to follow up this method of introduction and to have instructors keep an eye on the new worker till he brings his efficiency up to normal.

It may be, and usually is, necessary to help a worker out with money or meal tickets, or to guarantee his board till the first full pay day. All the workmen I have known individually have gone to new jobs "dead broke." Often they quit on some pretext, after working a few days, in order to draw pay to keep from going hungry. The Studebaker Corporation in Detroit is especially liberal with respect to meal tickets or pay advances to tide the new workman over. Much injustice is done new workers in keeping them on day rates after they have become proficient enough to be put on piece work. While I have not analyzed from this point of view the high turnover of labor which, I know, comes chiefly in the first few weeks of employment, I suggest that a comparison would show that turnover is highest at just the time when new workers should be put on

piece work and are not. I have followed the cases of workers for whom I secured jobs, and know that many cite this as a reason for quitting. Two plants I know of make special rates to beginners higher than the piece rates of experienced employes so that they can measure their progress from day to day and more speedily get on a profitable wage. This is a kind of minimum wage guarantee with the added value of an efficiency scale.

Promoting Physical Efficiency

Assuming our workmen well hired and well started, the promotion of physical efficiency is a direct means of increasing production and of helping men to earn pay which will keep them on the job. There are so many things entering into this that it is a good thing, when the resources of the company warrant, to have a physical department as a branch of the employment division, with a high grade physician and several nurses in charge. There is not space in this paper to mention any of the many plants which do this. The last convention of the American Medical Association devoted a section to physicians in industrial practice, and there is now a national conference board on the subject. The physical department will generally conduct examinations of desired applicants for employment, but I prefer the more economical method of the Flint, Mich., Manufacturers' Association, of a central physical examination bureau for applicants. The general adoption of this plan would free the time of plant physicians, who would still be needed to conduct periodic examinations of all workers, as a basis for advice on better health. Such periodic examinations may be voluntary at the start, and perhaps 70 per cent of the employes will come forward. Later, say after the second or third time, it can be made compulsory. It will reveal surprisingly the causes of low production in many cases, and help to eradicate them. The physical department should supervise plant conditions from the point of view of health, and should have authority on the improvement of ventilation, heating and lighting, and the reduction of noise, dirt and noxious and unpleasant odors, as well as the sanitation of oils and waste, the purification of drinking water and the cleanliness of all public rooms.

The Joseph and Feiss Company in Cleveland and the German American Button Company in Rochester are among the plants which find it profitable to add a dentist and an oculist on part time

to care for the teeth and eyes of employes. Most workmen have bad teeth, with resulting indigestion and other degenerative diseases, and defective eyesight can injure workmen and slow up work before they lead to the danger of accidents.

The physical department, of course, has charge of the emergency hospital, and in this connection it is worth while to say that first-aid should be prompt, adequate and accessible, as it too frequently is not.

But much work should be done away from the plant. Physician and nurses should visit workmen kept home by sickness, that of their families as well as their own, so that they will not be allowed to neglect illness. Home visits help reduce absenteeism, but they are justified on their own account in promoting physical efficiency. Plant doctors making home visits will know how to avoid conflict with other physicians with whose work they may seem to interfere. There are other measures which do not come within the field of a physical department which are advisable, nevertheless, on the score of increasing a workman's efficiency. Such expedients are plant restaurants, shorter work-hours, plant athletics, rest periods during the day, and yearly vacations with pay.

If possible, a factory should arrange to maintain its own restaurant, which, if properly managed, can be self-supporting. It diminishes a workman's energy to eat, possibly at his machine, a cold lunch carried in a paper parcel from home.

SHORT WORK-HOURS AND REST PERIODS

Shorter work-hours, while diminishing output for the day, increase it for the period. On principle I favor the eight-hour day, or, at most, the fifty-hour week, and in some arduous or intensely monotonous tasks I favor an even shorter day.

An investigation which I made a year ago among plants having the short workday convinced me that where a worker is not limited in output by the nature of the process, he will do as much in forty-eight hours as sixty. Of course, to secure this result the plant must be organized to keep him continuously busy for eight hours, and an incentive wage payment system must induce full effort.

My prejudice in favor of the eight-hour day springs wholly from my belief that it is an economy for the well organized factory and a gain for the community. Where issues with unions arise over the

matter or where consideration for the interests of other manufacturers enter the question it may be advisable for a limited time to maintain longer hours on principle. There is always something to be said for the *status quo*, and where hours are to be shortened, the employer has a right to demand time for adjustment so as either to secure some increase in effort from the workmen or to pass on to the consumer the added expense assumed for community good.

Furthermore, I believe that for securing increase in physical efficiency it is preferable to distribute a part of the added leisure time through the workday in the form of rest periods. The Aluminum Castings Company of Detroit gives a five-minute rest period each half day. A company in Rochester allows one rest period of three to twelve minutes in every hour, according to the nature of the work. To secure conformity it shuts down the power and has recreation organized to utilize the time. There is as yet no dependable information on fatigue, in spite of certain German researches and the more recent studies of the British Association and the Munitions Ministry, but the experience of the army with regard to forced marches and the experiments made by Frederick W. Taylor long ago demonstrated measurable benefits from rest periods. Any manager may make a first test by observing the effect of rest periods in his stenographic department. A working principle is that the more repetitive the operation is, the shorter the cycle of time, the more frequent but briefer is the rest required. And, too, I should consider it advisable to make rest periods either longer or more frequent toward the close of the day.

A vacation is one kind of rest period in the above sense. Shop men need it, perhaps more than office workers, and should secure it on the same terms. It is advisable to tie the vacation plan up with the measures to reduce absenteeism by making the length of the vacation with pay vary with the number of weeks of satisfactory attendance. Strike fever is often vacation fever. Shrewd managers, if they had no more altruistic aim, might well plan vacations to promote industrial equanimity.

It is needless to elaborate on the benefits of athletics in relation to health. They are, if anything, more important as self-expression, which I shall mention later.

DEVELOPMENT OF GOOD WORK HABITS AND OF SELF-EXPRESSION

A separate supplemental remedy for turnover is the development of good work habits. This relates particularly to punctuality and regularity. The man who is on time every day is least likely to quit work. His mental attitude becomes fixed in a feeling of responsibility toward his work. But the worker who becomes casual with regard to attendance has taken the first step toward total delinquency. You have only to picture the subconscious mental processes of a man who remains away from work one day needlessly, to appreciate the subtle change of attitude he bears toward his job. To foster good habits, we enumerate such measures as prompt investigation of causes of unexcused absence, strict penalties for tardiness, bonus for regular attendance (one Detroit company for instance paying twenty-five cents a day extra for a month's perfect record) and the establishment of a pay system such as piece work, premium or bonus, which encourages and rewards accuracy, high output and punctuality.

All other remedies for turnover are likely to be chiefly negative or counteractive unless the management encourages self-expression. First, hear complaints. No matter how unwisely or unfairly objections are presented, give men every chance to "knock." Let them come individually by preference. But even if you deprecate grievance committees, never refuse to hear a committee once appointed. Some men satisfy complaints by being allowed to air them, just as some old people desire not so much to be cured of ailments as to have ailments to describe.

It is better, however, to pick up complaints before they become grievances—while they may be still an expression of some form of idealism—and to deal with disquieting aspirations before they become programs. For this purpose shop meetings called by managers, and scheduled to discuss pleasant and hopeful enterprises as well as difficulties, preserve good feeling. Likewise parliamentary leaders who head off taking a vote until the majority will fall their way, or who sense out a needed compromise or recession before it is exacted, a good manager can employ a shop meeting either to approve his suggestions or to applaud his discernment.

But self-expression goes beyond this. It may be interest in work evoked by a suggestion system. If you make it an invariable

practice to acknowledge in writing every proposal in writing, you have a suggestion system. Boxes to receive letters, and prizes, commendation and promotions to reward them, are mere refinements. Then there is the still more exuberant and satisfying form of self-expression which appears in social, athletic and coöperative organization. We are all nearly as ambitious for communal as for financial rewards. You cannot bring five hundred people together in a factory or anywhere else habitually without providing a field for social striving. They crave organization, fun, activity and influence upon one another. You, as managers, can capitalize this tendency to the advantage of your enterprise. You can make your organization a real family, your plant a communal home.

Self-expression is self-rewarding. No life is complete without it and the factory which does not promote it is repressing a vital part of the complete life.

Now, when we reduce turnover of labor we assume certain responsibilities. Building up a permanent working force means securing permanent employes, men and women who stay with us till they grow old, and retire or die. We must, therefore, make their work more completely satisfying. We must make their work a sufficient career. Self-expression is one part of it, and there are other elements in it.

I know of few plants where routine factory work is a sufficient career, but I see no reason why it should not be. Doctors look forward cheerfully to going on being doctors. Lawyers have no difficulty in finding their life work in the law. Other professions are satisfying to those who follow them, and yet such is the nature of factory work at present that it savors a bit of the desire to perpetuate class distinctions to suggest that factory workers content themselves with the prospects of continuing as factory workers. Some wicked agitator has suggested that employers appropriate the motto of a big New York dairyman "Milk from contented cows" as suitable to the aim of managers to keep workers permanently on the job. The way to make that aim worthy is to arrange conditions so that factory work is in itself an agreeable career.

For one thing there must be definite standards of promotion and pay increases. A Detroit factory discovered a workman in its employ who had gone five years on one rate of pay. A Pittsburgh plant till recently was paying three different rates of pay for the same operation under three different names in different departments.

There should be variety of interest, too. The modern subdivision of labor makes a given task a drudgery, monotonous and intellectually stagnant, but it brings with it the possibility of frequent transfers so that, with proper instruction, a man can follow all the steps of a process without great cost to the plant. The Ford Motor Company asks each employe to fill out a card stating the jobs to which he would like to be transferred when it is possible. A company in Rochester encourages employes to fit themselves for more responsible positions and higher earning power, by reimbursing for their outlay those who complete courses of study. The subject of industrial education again hinges upon our discussion at this point, but it is too big to deal with here.

No work is a career, of course, unless it is possible through it to provide for old age. Those plants which succeed in establishing permanent working forces have the inescapable responsibility of providing for the future of all workmen. Group insurance and other forms of life insurance are good, but not sufficient. They do nothing for the workman between his retirement and his death, and serve but poorly even to compose his fears for his family after his death, because nearly every penny of industrial insurance now goes merely to pay funeral expenses.

A pension system helps to bridge the gap between superannuation and death. Any kind of old age pension is good, but we should lean, surely, toward the kind that appears least to be a charity on the part of the company. The income from an investment to which the workman has contributed and which the company has helped him to accumulate is not charity, and has the further merit of leaving an inheritance to the family. Any profit-sharing scheme like the Procter and Gamble plan, which gives the employe a form of stock ownership, has this merit. The most carefully thought out scheme is that of the Baker Manufacturing Company of Evansville, Wisconsin, which provides for a fifteen-year pension after retirement on a partial resale to the company of the stock secured out of profits shared.

These are ambitious plans. The program outlined above is a particular scheme comprising nearly all of the proposals successfully introduced for the attempted solution of the labor problem. Altogether they may not solve it, but incomplete as they may be, they are sufficiently aspiring and they are all that managers can undertake on their own responsibility.

Even if all of these proposals are applicable to most plants, no factory that has so far failed to inaugurate most of these things can hope immediately to get them all going. It will have to go slowly for two reasons, especially. In the first place, it is impossible to apply any new scheme to all employes at once. This is particularly true if, for the expedient to be successful, it must be understood and believed in by the employes. In such a case it must begin with only those who are ready for it. When the Jeffrey Manufacturing Company of Columbus, Ohio, began its building and loan association seven years ago, only eighteen workers out of five hundred who at first expressed interest were sufficiently impressed to make an actual beginning. Now, over a thousand belong to the association and they have over a half million dollars invested. Most good enterprises with workmen have begun in this small way, and no employer should be discouraged by a meager start if the principle at stake is important.

But it is even harder to make an industrial program succeed promptly owing to the difficulty that a plant has in establishing its character with its workmen. It is so even with individuals. We do not easily believe in the permanence of good intentions. We intensely desire to find friends in whom we can trust and who will be as helpful and patient with us ten years from now as today, but experience makes us cautious. Once we are convinced of the unalterable integrity of a friend, there is no gift of adoration too extravagant to lay at his feet.

Workmen have been disappointed too often to be anything but skeptical. They have tested too many mere paper plans for their welfare to place any easy reliance upon new ones. But when a management, by undeviating honesty, determination and good spirit, carries through during a term of years a program of employes' betterment, it cannot fail to win their confidence and friendship.

How to Reduce Labor Turnover[2]

1. Preliminary Measures

a—Attempt to learn the true cost of turnover in your plant in order to know how much you can afford to spend to eliminate it

[2]An outline of the essential part of the scheme pictured by the author in the foregoing article. Note that this scheme is intended to be complete and is therefore impossible of universal application *in toto*.

b—Keep adequate records as means of analysis of sources and causes of turnover

(1) Historical and statistical record separate for each employe including date of employing or transferring, rates, earnings, bonuses, defective work, complaints by or against man, absence, tardiness, periodic certification of foremen, date of quitting and reasons
(2) Turnover by departments, by causes, by weeks and months and years, and by classes of skills
(3) High and low earnings by departments
(4) Defective work by departments
(5) Absenteeism and tardiness by departments

2. *Fundamental Remedies*

a—Hire the right men for the jobs

(1) Work up good application list which is a "prospect file" by vigilant search of sources of supply, by industrial census of your vicinity, by courteous and hospitable treatment of applicants at all times, and by getting a good name for your factory even from men who have quit you
(2) Using your present work force as a "prospect file," coöperate with agencies for industrial education, supplementing them with apprenticeship training, to build up a system of promotion and transfer
(3) Secure time to examine new applicants thoroughly by receiving advance notice of need and by using adequate assistance in employment department
(4) Hire in accordance with written specifications for each job, prepared at leisure, and after due consultation and criticism
(5) Prepare a definite scheme of direct examination for each type of work, using as much of the character reading methods as your experience approves
(6) Examine physically with view both to general fitness, to suitability for specified job, and to need of later up-building
(7) Visit homes of desired applicants
(8) Check up records of previous employments
(9) Hire only those who can earn an adequate wage

b—Pay an adequate wage

(1) Study cost of and facilities for decent living for each workman and use results in setting base rates
(2) Give special study to cases of inefficient workmen, to see if money troubles are affecting them
(3) Centralize and pay off at discount, debts of overburdened workmen
(4) Promote mutual aid association
(5) Establish legal aid bureau
(6) Pay weekly
(7) Discourage alcoholism
(8) Instruct in proper use of income

(9) Encourage thrift and home-building
(10) Where special causes for increased living cost obtain, attack them, as by coöperative stores, housing measures, etc.

c—Provide steady work

(1) Give piece workers steady flow of material during the day, by proper scheduling system
(2) Regularize production throughout the year to minimize lay-offs and shut-downs
(3) Abolish the annual physical inventory, in favor of perpetual inventory with continuous checks
(4) Make repairs promptly and provide a sufficient reserve supply of tools

d—Don't fire hastily

(1) Check up foremen whose departments show high turnover records through men's quitting
(2) Don't let foremen discharge at all
(3) Give unsatisfactory men at least one chance through transfer
(4) Establish employment committee to review cases of discharge where men appeal
(5) Establish foremen's club to study ways of getting along with men
(6) Interview, before paying off, men who quit voluntarily

3. Supplementary Remedies

a—Start new men right

(1) Make clearly understood agreement as to starting pay and schedule of advances
(2) Introduce new men to bosses, to fellow-workers, and to physical surroundings, and acquaint with rules and facilities of plant
(3) Instruct men thoroughly in new task
(4) Advance money or meal tickets to beginners short of funds
(5) Help beginners speedily to get on piece or bonus rates

b—Promote physical efficiency

(1) Establish physical department
(2) Examine all workmen periodically and provide machinery for following up those found to be defective
(3) Provide adequate light, heat and ventilation
(4) Reduce noise, dirt and noxious odors and fumes
(5) Purify oils, waste and other supplies
(6) Purify drinking water
(7) Provide sanitary lockers, wash rooms and toilets
(8) Insist upon good teeth and good eyes by using, at least on part time, the services of a dentist and an oculist
(9) Have nurses or doctors visit those kept home by illness
(10) Provide mid-workday meals at plant
(11) Provide good tools and fatigue minimizing equipment

(12) Shorten work-hours while securing fair output
(13) Provide at least three rest periods during the day
(14) Arrange for yearly vacations with pay for all employes. This can be on the basis of an efficiency record or punctuality record
(15) Promote athletics

c—Foster good habits

(1) Investigate causes of unexcused absence
(2) Fix strict penalties for tardiness and unexcused absence
(3) Bonus regular attendance
(4) Establish pay system that encourages and rewards accuracy, high output and punctuality

d—Give all employes a hearing

(1) Hear complaints at all times, no matter how put forward
(2) Hold regular shop meetings by departments and by divisions to hear men's ideas
(3) Establish system for considering written suggestions from men; and rewarding with commendation, prizes, or promotion, all thought worthy, and acknowledging all such suggestions without exception
(4) Encourage all forms of self-directed organization, whether of athletic, social, or coöperative enterprises—provided such organization is not subject to orders from persons outside of your plant and contrary to its interests

e—Make work in your plant a sufficient career

(1) Establish system for granting unasked-for pay increases as deserved
(2) Discover ambitions of men for future transfers and promotions
(3) Help train men to new tasks
(4) Transfer with some liberality
(5) Encourage men to improve general education by reimbursing for outlay on courses of study as completed

f—Provide for future of all workmen

(1) Purchase group insurance for all workmen
(2) Pension disabled or superannuated employes
(3) Share profits on some form of stock-sharing basis, possibly in lieu of pension scheme

4. Provocative Remedies

a—Fire when other methods clearly fail

(1) Those with chronic social diseases
(2) Those whose morals menace the high standards of fellow employes
(3) Those who persist in agitation
(4) Those who will not quit drinking

b—Submit all such discharges to appeal committee on which employes are represented

THE TABULATING OF LABOR TURNOVER

By E. H. Fish,

Employment Manager, Norton Co., Worcester, Mass.; Chairman, Committee on Labor Turnover of the Boston Employment Managers' Association.

The efforts of this committee to find a reasonable basis for comparison between shops, based on the length of time which men stay on their jobs, developed at the very first a feeling that it was impossible to reduce it to any single figure or percentage.

We felt that the percentage of labor turnover as usually computed and published was being used to some extent as an index of the value of an employment department. If this is so, it puts a premium on a department able to persuade foremen to retain inefficient workers whom his better judgment told him should be laid off or dismissed. In view of these thoughts, we decided at the start that it would be desirable to analyze the causes of leaving as well as the different kinds or conditions of people whom we employed. With this in mind, we evolved sheets (see inserts 1 and 2) in which those who were hired, or those entering the employ of the company, were divided broadly, at first, into the new, the reëmployed, and those transferred from other departments. One sheet is prepared for recording the turnover for the entire plant by departments during a chosen period of time, and the other the turnover in a given department for a given month. On each sheet the new and the reëmployed are each divided into three classes, those who are experienced, those who are learners and those who are laborers. The division was adopted after considerable discussion in which skilled, unskilled and semi-skilled occupations were discussed, but it was decided that for the purpose of keeping the cost of labor turnover low, it was an advantage to every concern to hire experienced people, regardless of whether their experience was that of the skilled, semi-skilled or unskilled person, because the previous experience with the company, or with similar companies, counts for almost as much in one case as another.

PROBLEMS OF CLASSIFICATION

The classification of learners was adopted because of our feeling that we should face the facts fairly and squarely as to whether we were hiring men whom we expected to train for our own purposes, whether they were men who we suspected had previous experience, or whether we should make a distinction between them and laborers whom we expect to be about equally efficient at the beginning and at the end of their employment. This too gives us an opportunity to present to the managements of our several companies the number, usually large, of employes for whom some kind of training is needed before they become efficient, because by thus showing this considerable number, it probably will be possible to induce them to set aside certain portions of the shop for specific training of new employes. As such men are scattered amongst the general help, the large number usually passes unnoticed. Under the head of those transferred to a given department, the division is made between those transferred for physical reasons, which includes, of course, those transferred because they have been injured in accidents, and those whose physical condition has changed through sickness, or those whose physical condition remains the same, but where the job in the department has changed its nature in such a way that we do not feel the man can safely continue to do the work for which he was originally employed.

Those promoted require no discussion. Those who are transferred from another department, because they have failed in the first, should be kept entirely distinct because, while as a matter of fairness to the individual it is usually desirable to give the failures another opportunity in some other department, the percentage of them who make good should be kept track of, and that cannot be done unless we know the actual number who were transferred under such conditions. It appears to be generally found that a sufficient number of those who fail in one department succeed in another to make it well worth while to hold this second opportunity open at the option of the employment department, but it was not thought that the percentage of those who succeed in the second department is large enough so that it can be said to be universally true that everyone should have a second or a third opportunity.

Under the head of "Transfers on Account of Departmental Fluctuation," we take care of cases where one department finds

TURNOVER

Turnover is the change in personnel brought about by hiring and termination of employment. Many conditions enter into these changes, some of which are beyond the employer's control or influence. Other conditions are largely within the control of the employer and, because of their obvious importance, they demand serious consideration.

Problems relating to personnel are no less vital than problems relating to markets, materials and machinery. Conditions affecting turnover lie at the heart of all personnel problems. Intelligent consideration cannot be given these conditions without knowledge of facts and such knowledge depends upon accurate data.

It is impractical merely to group or express in total percentage, all the factors entering into turnover; these factors are irreconcilable. It is of value to know the percent of exits but it is of more value to know the causes of those exits; therefore a detailed anaylsis of reasons underlying termination of employment becomes valuable.

With the above in mind and appreciating the necessity of uniform records if future discussions of the problems of turnover are to be of value, the Employment Managers' Association of Boston has adopted this provisional form and method for computing turnover. The Association anticipates its later revision in the light of experience to be secured through its use.

As a convenience and economy to employers this form is printed and carried in stock by the Library Bureau, Boston, Massachusetts.

DEPARTMENT SUMMARY

ENTRANCES	NUMBER	PER CENT
1 Employed	_____	_____
2 Re-employed	_____	_____
3 Transferred	_____	_____
4 Total Entrances	_____	_____

EXITS	NUMBER	PER CENT
5 Left of Own Accord	_____	_____
6 Discharged	_____	_____
7 Laid-off	_____	_____
8 Transferred	_____	_____
9 Unavoidable	_____	_____
10 Total Exits	_____	_____

Deduct Unavoidable (9) _____

Balance = Department Turnover _____

REMARKS:—

RECORD OF TURNOVER

COMPANY ______________________ DEPARTMENT ______________________ MONTH ______________

FOREMAN ______________________ YEAR ______________

Date	ENTRANCES												EXITS																																			Date
	NEW				RE-EMPLOYED				TRANSFERRED				LEFT OF OWN ACCORD												DISCHARGED									LAID-OFF				TRANSFERRED				UNAVOIDABLE						
													WORKING CONDITIONS						LOCATION			OTHER REASONS																						DEATH			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	
	Experienced	Learners	Laborers		Experienced	Learners	Laborers		Physical Reasons	Promoted	Failed	Departmental Fluctuation	Wages	Heavy, Wet or Dusty etc.	Ill Health	Monotony			Family Moving	Housing Conditions				Unkown	Careless	Lazy	Incompetent	Unreliable	Liquor	Trouble Breeder	Insubordinate	Misconduct		To Decrease Force	Physical Reasons	Temporarily Employed		Physical Reasons	Promoted	Failed	Departmental Fluctuation	Pensioned or Superannuated	Marriage (Female) or Pregnancy	Exterior Causes	Occupational Causes	TOTAL ENTRANCES	TOTAL EXITS	
1																																																1
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4																																																4
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To Compute Percentages
DIVIDE TOTALS BY "DEPARTMENT AVERAGE for MONTH"

Number of Employees In Department on Last Day of Last Month :— ______________

Last Day of this Month :— ______________

Department Average for Month :— ______________

itself temporarily out of the normal amount of work through lack of delivery of material, or for any other reasons, and the people employed there must be taken care of in some other department instead of being allowed to drift outside.

THE INFLUENCE OF WORKING CONDITIONS

Under the head of "Exits," broad divisions were made between (1) those who left of their own accord, (2) those who were discharged or dismissed from the employ of the company, (3) those who were laid off, (4) those transferred to other departments, and (5) the exits which were unavoidable by any act which the company might take. Under those who left of their own accord and which should be understood to include only conditions which might be remedied if the company saw fit to do it, we make the three broad divisions of those who left (a) on account of working conditions, (b) on account of location, and (c) for other reasons. Under working conditions we made the subdivisions of those who leave on account of wages, that is, those who were able to or thought they were able to get larger pay, those who leave on account of heavy, wet or dusty conditions, which column might also be used to cover many other conditions such as those due to lead poisoning, etc., those who left on account of ill health, and monotony. Two additional columns are left for specific reasons which may apply only to the shop which is using this form. Probably in almost every concern, the largest number of assignable reasons will be those relating to wages. It was thought that experience might show a certain more or less definite percentage of people leaving on account of their wages which might indicate a danger point and that salaries or wages should be increased. For example, if the turnover due to people leaving the concern on account of wages alone should become more than say 30 or 40 per cent, it might be deemed desirable to consider seriously the question of a general increase of wages in the department affected.

Under the head of "Heavy, Wet or Dusty," etc., of course are included conditions which are oftentimes inherent in the business itself, and which must be faced. Sometimes, however, the fact that we are able to show to the management that a larger percentage of people than they had supposed leave us on account of these reasons, may indicate to them the desirability of spending

considerable sums of money in remedying conditions which they had been inclined to think were of comparatively little importance. Under "Ill Health," are supposed to be included only such cases as are contracted outside of the employment, for such few cases of sickness as come about through the fault of the company itself, or through defects which they might readily remedy, should be classified under "Transfers for Physical Reasons."

"Monotony," is often the cause of people leaving, although it is not always easy to discover this reason from the excuses given by the people themselves, and especially from the excuses given by the foremen. Where it is suspected that work is monotonous care should be taken to draw out the opinion of those who leave.

LIVING CONDITIONS AND THEIR EFFECT

Under the head of "Location," we have made two divisions, one "Due to the Family Moving from Town," which, of course, usually applies to the children or the younger people in the family. We usually consider that if the head of the family is the one who takes the initiative in leaving town that it must be for some other reason, and will be classified under another head; that is, he may be leaving town on account of any of the working conditions which we have already mentioned, or it may be because we have laid him off, and he is only able to secure a position somewhere else.

Under the head of "Housing Conditions," we place the leaving of employes because they are unable to secure the kind of tenements or houses which they desire, or cases which often happen in rush times of their being entirely unable to find accommodations at all. We place this under the avoidable causes, because it is something which concerns have usually in locating their plants out of the center of large cities. The concern may not care to go to the expense of reducing the turnover due to the lack of good transportation or good housing, because it feels it is making more money through some of the other advantages of distance from the center.

A number of blank columns are left here. The only miscellaneous reason which we are giving is "Unknown," which, unfortunately, it seems to be necessary to maintain. It is usually possible to get some reason assigned for every person's leaving, also many times these reasons are such that we doubt them. Therefore

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PLANT SUMMARY

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2 Re-employed	_____	_____
3 Transferred	_____	_____
4 Total Entrances	_____	_____

EXITS	NUMBER	PER CENT
5 Left of Own Accord	_____	_____
6 Discharged	_____	_____
7 Laid-off	_____	_____
8 Transferred	_____	_____
9 Unavoidable	_____	_____
10 Total Exits	_____	_____

Deduct Transferred and Unavoidable (8 and 9) _____

Balance = Plant Turnover _____

REMARKS :—

RECORD OF TURNOVER

COMPANY_____ MONTH_____ YEAR_____

DEPARTMENTS	ENTRANCES												EXITS																																			
	NEW				RE-EMPLOYED				TRANSFERRED				LEFT OF OWN ACCORD									DISCHARGED								LAID-OFF				TRANSFERRED				UNAVOIDABLE						46	47
													WORKING CONDITIONS					LOCATION		OTHER REASONS																			DEATH					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45		
	Experienced	Learners	Laborers		Experienced	Learners	Laborers		Physical Reasons	Promoted	Failed	Departmental Fluctuation	Wages	Heavy, Wet or Dusty etc.	Ill Health	Monotony			Family Moving	Housing Conditions				Unkown	Careless	Lazy	Incompetent	Unreliable	Liquor	Trouble Breeder	Insubordinate	Misconduct		To Decrease Force	Physical Reasons	Temporarily Employed		Physical Reasons	Promoted	Failed	Departmental Fluctuation	Pensioned or Superannuated	Marriage (Female) or Pregnancy	Exterior Causes	Occupational Causes	TOTAL ENTRANCES	TOTAL EXITS
Abrasive																																																
Abrasive Supply																																																
Abrasive # 3 Store House																																																
Automobiles																																																
Bond Mixing																																																
Carpenter Shop																																																
Catering																																																
Crystolon																																																
Drafting Room																																																
Elastic																																																
Electrician																																																
Engineering																																																
Exhibition																																																
Factory Cleaners																																																
Filling																																																
Fire Brick																																																
General - Yard Men																																																
Glass Wheel																																																
Grading																																																
Heating																																																
Hospital																																																
TOTAL																																																
PER CENT																																																
TOTAL																																																
PER CENT																																																
TOTAL																																																
PER CENT																																																

To Compute Percentages
DIVIDE TOTALS BY "PLANT AVERAGE for MONTH"

Number of Employees in Plant on Last Day of Last Month :-_____

Last Day of this Month :-_____

Plant Average for Month :-_____

it seemed desirable to leave a column frankly for those whom we do not wish to assign to any particular cause.

CAUSES OF DISMISSAL

The exits from work on account of dismissal have been classified under the heads of "Careless," the careless man perhaps being the greatest bugbear that we have, although sometimes it is a curable disease. Laziness is our second classification, though as a usual thing it is very hard to distinguish between carelessness and laziness, the results and the symptoms being very much the same. It was, however, thought that there would be men who are exceptionally active whose carelessness is the result of over-enthusiasm, and whose classification falls under the first head rather than the second.

Incompetency is a very common cause of dismissal in these times when men are apt to represent themselves as even more capable than they really are. In a measure, the turnover due to incompetence may be said to reflect somewhat on the employment department who should be sufficiently keen to discover such cases before hiring them. It is certainly a part of their duty to give such people another opportunity if possible by transferring them to some other department, so that we would expect that this column would not be especially large. Under the head of "Unreliable," we would place such men as we considered were actually competent, but through carelessness or laziness were apt to be variable in their actions. Probably not a great many would be classified under this head, as they would most naturally fall under the two heads of "Carelessness" or "Laziness." The column "Liquor," "Trouble Breeders," "Insubordinates" and "Misconduct" probably need no explanation. There are very few places where any of us can afford to keep men who abuse the use of liquors, or those who are in the habit of stirring up trouble with other people. Our general experience with insubordination, however, leads us to feel that there would be very few cases which could be clearly placed under this classification, as most men are willing to subordinate themselves to a foreman's instructions if they are given clearly so the man does not misunderstand them, and if they are given in a proper spirit. Most of the men, who under proper working conditions, are insubordinate may be said to be trouble breeders by nature, and should probably be classed under that heading.

WHY MEN ARE LAID OFF OR TRANSFERRED

Under the sub-heading of "Men Laid Off," we have made the following divisions:

1. To decrease the force, probably made necessary by lack of work, although it might be due to the fact that additional machinery had been installed which required less labor to operate, or because the men already on the job had become more efficient and were able to do the work in a smaller group.

2. Those laid off for physical reasons include those who have become aged in the service of the company, and those who as a result of some sickness, or accident, had become incapacitated. It seems, however, that very few should be placed under this column, as a man who has become incapacitated as a result of the work which he has done seems to be a proper object for further care by the company, either by being placed in some easier, less active job, or by being placed on some sort of a pension roll.

The next column accounts for the laying off of those temporarily employed, which reminds us that under the entrances no division is made between those who are employed for temporary work and those who are not. It is very difficult usually to determine, at the time a man is hired, whether his employment is temporary or not. We may have a gang of fifty men, and we may wish to increase that gang temporarily to seventy-five. In hiring twenty-five new men, we are almost certain that some will prove to be men whom we will wish to keep at the expiration of the time when the work is done for which they are hired, preferring to discharge some of the men who are already on the job as being less capable.

The subheading for men transferred is divided into those transferred for physical reasons, which is covered also in our statement regarding those laid off; for those promoted, which is usually obvious, although promotion at times may appear to be a little vague. Oftentimes, a man asks for a transfer from one department to another which he believes will prove to be a promotion for him, when it seems to us as if it was a demotion. However, we should feel, we think, that anyone who is bettered either mentally, or physically, or pecuniarily, is promoted even though it may not appear to an outsider that the new job is better than the old one.

Those who have failed in one department and are transferred from that department on that account, also, of course, appear in the entrances under the head of those transferred. Departmental fluctuation is supposed to cover the transfers made from time to

time from one department to another, and more especially between departments of the same nature, but, perhaps, in different buildings under different foremen. This would cover such cases as those where a number of people leave one department, and in order to fill the gap others are shifted from other departments to that, possibly temporarily and possibly permanently. Transfers under this heading would not constitute promotions nor indicate that the person transferred is in any sense a failure.

The unavoidable causes are classified among those who are superannuated or pensioned for any other reason, those whose marriage takes them away from the shop or office, and the deaths which are caused by exterior causes, or those due to occupation in the works. We felt there should be this last distinction between the two because exterior causes are not a reflection upon the industry at all, while those coming from the occupational diseases or from accidents should be kept separate so that we might have an index of the dangers of our work.

At the bottom of the sheet, it will be seen that there is provision made for getting the percentage of leaving for each one of a number of different causes. There is first a footing for the total of each individual column. By dividing that total by the average number of employes concerned, we arrive at the percentage leaving for that particular department for that individual reason, and for the time covered by the sheet. Then the next totals are for the totals of the subheadings: that is, the new entrances, the reëmployed and transferred, those who left of their own accord, those who were discharged, those who were laid off, those who were transferred and the unavoidable. Then the third set of totals and percentages is for those coming and those leaving, so that if this is applied to the whole plant, the percentage of those leaving over the average number employed will give us the total turnover for the whole plant. On the other hand, the sheet gives us a classification as fine as anyone probably will require, so that a study of these sheets will give a bird's-eye view of the whole condition, and as finely subdivided an opportunity for study as can be wished. The recapitulation of these figures by departments and by plants is provided for, as may be noticed on the back of the two forms.

DETERMINING COST OF TURNOVER OF LABOR

By Boyd Fisher,
Vice-President, Detroit Executives' Club.

The following tentative proposals for a real cost system for labor turnover are offered for criticism. To date all estimates of the cost of hiring and firing have been mere guess work.

Mr. Magnus Alexander's thoughtful paper on "Personnel and Employment Problems," the only study of the subject, has been of use in making up this system, but one is forced to point out that his method of arriving at cost is more suggestive than authoritative, and was doubtless not intended to be final. He uses the opinions of experienced men, including his own, as a basis for arriving at each element of cost. This procedure might be repeated indefinitely without giving us anything reliable.

To follow the method here proposed will be expensive, but once there have been accumulated reliable statistics on the subject, the process of correction and follow-up will not be costly. Furthermore, the research can well be parcelled out among various plants to render immediate results of value. This, however, should not be mistaken for saying that the extent of each element of cost is the same in various plants. It is probably merely sufficiently the same that if several plants study each feature, the average results will yield an honestly average figure. Each individual plant must determine its own cost to get accurate results for its own guidance, and must expect the cost to vary somewhat from year to year.

Mr. Alexander estimated the cost of hiring a laborer at $8.50 and an unskilled machine operative at $73.50. Thus we see that if his figures are correct, a 100 per cent turnover of unskilled machine operative costs as much as an 860 per cent turnover of laborers. This difference in cost warrants our spending money and time to get reliable data. Furthermore, it reveals how inconclusive is the practice of stating turnover merely in percentages which lump together turnover of all grades of workers. A definite knowledge of cost will show us where we ought to place the greatest emphasis in efforts to reduce turnover, and will guide us accurately

in deciding how much to spend on apprentice instruction, welfare work and improved employment methods, and, especially give us knowledge of an employe's increasing usefulness to a concern as a basis for making wage increases for long service.

It should be noted, in connection with the accompanying outline, that no mention is made of the cost of rehiring former employes. This obviously differs from the cost of hiring new men. The cost, however, can be figured for each item precisely as with new employes. Former and new employes should simply be analyzed separately.

DETERMINING COST OF TURNOVER

I. *What is meant by "turnover"*

1. The average standing pay roll for any given period should be given as basis
2. In case there is a general reduction in the number of positions during the period the percentage of new employes to the average standing pay roll should be taken
3. In case there is an increase in the organization the percentage of quitters to the average standing pay roll should be taken. In the first case the amount by which the number of quitters exceeds the number of new employes accounts for the reduction. In the second case the amount by which the new employes exceeds the quitters accounts for the increase.[1]

II. *Variables in the cost of turnover*

1. Cost varies by classes of skills of employes hired
   - A. Highly skilled, all-round machinists or master workmen—
     - a. Require little instruction
     - b. Are easy on machines
     - c. Are economical with supplies
     - d. Soon reach normal output
     - e. Scrap minimum of product
   - B. Semi-skilled men—"operatives"—who have operated some one or two machines just long enough to make production on those machines—
     - a. Require instruction on new jobs
     - b. Are harder on machines
     - c. Are careless with supplies
     - d. Do not soon reach normal output
     - e. Have high scrap average
   - C. Unskilled operatives—
     - a. Require still more instruction
     - b. Are deadly on machines

[1] *The Annals of the American Academy of Political and Social Science* on "Personnel and Employment Problems," article by R. A. Feiss, p. 51.

c. Are wasteful of supplies
d. May never reach normal output
e. Scrap as much as they produce

D. Laborers—
a. Require little instruction and get less
b. Don't use machines
c. Can't waste many supplies
d. Have short learning periods
e. Scrap nothing

E. Clerks—
a. Require as much instruction as B
b. Are about as hard on machines as B
c. Use cheaper supplies
d. Take as long as B to reach output but cost less per unit
e. Use no product and hence waste none
f. Have a high factor of expensive errors

2. Cost results will vary according to completeness of analysis. We should consider the following items:
A. Cost of hiring, the only item which has a tendency to go up with the reduction of turnover because it is the only factor on a "production" basis
B. Cost of instruction
C. Cost of added wear and tear on equipment operated by green hands
D. Cost of reduced production on machines operated by green hands, when payment is not strictly proportional to output
E. Cost of excess plant necessary to make up production lost on machines operated by green hands
F. Cost of scrap over and above the amount normal for experienced men

We need not consider reduced sales due to delay in schedules or to spoiled work because they are too difficult to determine; neither should we count danger of strikes due to agitation among new employes, because too occasional. But these things exist and should be considered as showing our other cost estimates as probably conservative.

3. Cost results will vary according to length of time new employes are followed up
A. Hiring *does not* vary in this way
B. Instruction usually is limited to an arbitrary time—two or three days
C. The new worker probably requires around three months to get familiar with machine in all respects, although this estimate remains to be proved
D. Up to probably four weeks the new employe improves rapidly. It takes him probably six months to "hit his best stride." Not so, however, with laborers
E. The excess plant requirement is proportional to reduced production

F. Excess scrap probably persists for a longer period than reduced production, because most men acquire speed more quickly than accuracy

G. Waste keeps pace largely with scrap

4. Cost varies according to the type and value of the equipment used by new employes, with respect to cost of:

A. Hiring—not so

B. Instruction—true to large extent

C. Wear and tear—to very large extent

D. Reduced production—holds true

E. Excess plant requirement—especially and chiefly

F. Scrap—to some extent

G. Waste—to some extent

Among the different classes of employes this variation is significant as follows:

Class A. This is important because they are likely to use expensive equipment

Class B. Important for same reason

Class C. Important

Class D. Does not hold true of laborers, who use little equipment

Class E. Holds true in less degree

III. *Figuring total costs while taking the above variables into account*

1. To figure cost of *hiring*—itemize:

A. Standard cost per employe for physical examination. Spread cost of total number *examined* over total number *hired*

B. Membership in employers' associations and other labor bureaus. Spread annual cost over number hired

C. Clerical help and all other salaries of employment department. Figure total number of men on "live" record during the year, whether employed or not—subtract the total for average standing pay roll. The ratio of remainder of names to the total on "live" record is proportion of cost of salaries which should be spread over the number of men hired

This subtraction of a proportion for employes on the pay roll is made in recognition of the fact that there would need to be clerical work of this sort even if there were no hiring done at all

D. Cost of advertising, trips out of town for men, office rent, new badges and miscellaneous, divided among number hired

E. Cost of printing prorated over number hired according to C

These items do not vary according to length of service or class of skills or types of equipment used.

2. Instruction—itemize:

A. Time of foremen spent with new employes

B. Time of workmen detailed as instructors for handling machine

C. Time of "time study" men acting as occasional instructors for handling work

Figure separately for an average month for each class of skill "A to E."

3. Wear and tear—itemize:
   A. Time of maintenance department on machines operated by new employes, minus a constant factor of time for experienced employes. (Obtain this factor by recording for a sufficient period the time of maintenance men spent on the average with a selected group of employes of all lengths of service over one year.)
   B. Cost of materials used for repairs on machines operated by new employes, minus a constant factor of material, for all employes. (Obtain as in "A.")
   (The above necessitates at least temporary use of job tickets for maintenance men, with space on tickets to indicate time spent with new and old employes.)
   C. Breakage and wear on tools, dies and jigs used by new employes, minus a constant factor for experienced employes
   D. Constant factor of cost per man for premature depreciation of machinery. This can only be guessed at, but it may be more closely approximated by a genuine research, which would:
      a. Take certain critical machines now worn out
      b. Find out best records of wear from the makers
      c. Compare average wear in given plant, and
      d. Spread the difference over the number of new men who worked on those machines during
      e. The actual life of those machines. Once determined by careful studies and compared with the results of other students, this could be made a constant factor for each plant, or each type of machinery, relative to complexity of design. Figure all but the last point for average month for all classes of skills save laborers.
4. Labor cost of reduced production. This cannot be figured exactly but can be approximately by averaging the results obtained by looking at the matter from several points of view. I suggest the following:
   A. First alternative—
      a. Determine by time study and standard practice the ideal capacity of each machine and production center in terms of production per hour
      b. In order not to charge up to turnover any loss of production due to defects in scheduling, record the actual man-hours worked on each production center for a given period and thus
      c. Arrive at total ideal output for that number of hours
      d. The difference between this and the actual output is the loss due to turnover and may be
      e. Prorated to the number of men hired for the period. Theoretically, workers have been paid for ideal output. Price this reduced production, therefore, at cost of departments in question of direct and indirect labor. All other items of cost are elsewhere provided for, under "waste," "excess plant," "wear and tear," etc. If a piece price is paid, however, new workers,

like old, being paid only for work actually done, only the cost of indirect labor should be assessed against the labor cost of reduced production. The above method is not strictly true, but if the ideal machine capacity is based upon the observed output of experienced operatives, it will be sufficiently correct.

B. Second alternative—
   a. Select a number of machines worked by new men and an equal number of like machines worked by men over a year in service
   b. Record the production of each group until the total of men reaches the total of old men
   c. Time required to teach this may be taken as average learning time
   d. Total difference of production during this time may be spread over the number observed and the average taken as the loss for the average man hired
   e. For men dropping out of the groups while under consideration substitute other men with approximately equal production and equal length of service. Separate observations should be taken for each class of skill—A, B, C, and E.

C. Laborers can be figured in about the same way, namely—
   a. Take a set quantity of trucking, etc.
   b. Compare the number of new as against the number of old men required to do this fixed quantity
   c. Drop men as they improve so as to keep output constant
   d. Until number in first gang equals number in old, this gives the learning time for laborers, and the loss of production of average new laborer.

5. Excess plant cost of reduced production

A. Assume that the plant investment required under present conditions will bear the same ratio to total investment in plant which would be needed if there were no turnover, as the production which would be possible with the present equipment operated by all experienced men would bear to the present actual output. In other words, if your reduced production is 20 per cent, your excess plant required is 20 per cent. This is stated as axiomatic

B. Find present total inventory

C. Figure on the basis of your present loss of production how much less equipment would be necessary without labor turnover

D. The difference may be used as basis for figuring the amounts of—
   a. Interest on capital
   b. Depreciation
   c. Power
   d. Insurance
   e. Rent
   f. Repairs

   which are due to turnover

E. Figure by shops, as if separate plants, for each class of skill using equipment and spread cost over turnover in those classes

Excess plant cost and labor cost of reduced production should be figured separately and then added together, instead of prorating excess plant cost as a burden on the labor cost of lost production, because the burden is not the same man for man, and department for department. Furthermore, in departments where wages are in proportion to efficiency, "excess plant" costs plus excess supervision constitute the sum lost by slow production.

6. Spoiled Work
   A. Select at random two equal groups of men representing evenly all grades of skill save laborers, one, a group of new employes, the other, of men over one year in service
   B. Compare total scrap losses for each group until approximately even per day period for some time. The point at which it began to be even may be taken as showing the average time required to reach normal scrap record
   C. Subtract total scrap made by old men from total made by new men and divide the difference by the number in a group, to get total scrap per new employe hired
7. Waste—

   Figure the same as scrap. The item includes waste of oil, cutting compound, compressed air, etc.

AN ACTUAL ACCOUNT OF WHAT WE HAVE DONE TO REDUCE OUR LABOR TURNOVER

By John M. Williams,

Secretary, Fayette R. Plumb, Inc., of Philadelphia and St. Louis; President of the Philadelphia Association for the Discussion of Employment Problems.

The Use of an Employment Department

I wish to speak from the standpoint of the average employer of the need of an employment department; and, to make myself entirely clear, I wish to point out conditions as they existed in our factory, and it is safe to presume in the average factory.

First, I want to state that our firm is over sixty years old, and has built up a reputation for making high quality tools during all of that period. This is not intended as an advertising statement, but is to give you some idea of the class of work we do, the problems we must solve, and further, to have you feel that our employes producing such work, must be at least of average intelligence. You will thus understand that the problems we met were not due to the fact that we had a lot of underpaid, ignorant employes. In other words, our problems are about the same as the problems you have in your own factory.

I also want to impress upon you the fact that while we are sixty years old, we are also sixty years young. I am the oldest man in the executive department of our organization and I am not much over forty years old. We have the reputation of being progressive along all lines of executive control and have established a record for efficiency along general factory lines. We have technical graduates who have been employed in our various departments to keep us fully abreast of the times in all branches of research work, especially in the development of steel. We have a cost system in our factory that was installed at the expense of thousands of dollars, and is to my mind the most efficient I have ever seen because it produces results, and presents them to us monthly.

These points are brought out so that you will realize that we are not held back by any "old fogy" ideas on the part of our executives, and to bring home to you the appalling fact that in an or-

ganization such as ours, striving to be up-to-date, it has only been within the past few years that we have fully realized what a terrible drain excessive labor turnover makes on the pocketbook of the employer.

COST OF LABOR TURNOVER

We have learned during the past two years from authorities in their line, as to the cost of labor turnover, and I believe the fact is firmly fixed in our minds that there is such a cost, but as the statement of such cost has been so general we are more or less skeptical as to the actual amount involved. I therefore propose to tell you about one of our departments, and will consider only the actual cost to us of bringing a man in off the streets, placing him in a position that is only semi-skilled, in fact, in such a position that with average intelligence a man becomes an effective worker in twelve weeks.

The department in question is run on a piece work basis and we have a plan whereby we pay each workman a day rate, in addition to a piece rate, until such time as he becomes efficient enough to earn a fair week's salary, which in this department is about six weeks, although to reach the full pay of an expert worker takes twelve weeks.

Our basis is as follows:

The first week we pay thirty cents per hour flat.

The second week we pay twenty cents per hour and in addition pay for all production he turns out on the basis of regular piece rates of such production.

The third week we pay fifteen cents per hour on the same basis.

The fourth week we pay twelve cents per hour on the same basis.

The fifth week we pay eight cents per hour on the same basis.

The sixth week we pay five cents per hour on the same basis.

At the end of that time the man should be self-supporting. We credit this man with all work turned out, and yet our records show that such a man costs us, in excess day work charges, the cash sum of $42. This, however, is only part of the cost, as in this particular department the overhead expense is 130 per cent, or for every dollar we pay in actual productive labor we pay $1.30 for unproductive expense, such as foremen's wages, instructors' wages, inspectors' wages, power, heat and light, repairs to machinery and fixtures (belts, shafting, benches, frames, etc.), oils, grease and

kindred items and expense materials that have no connection with the actual material in the tools, such as emery, grindstone, files, hand tools, etc.

This brings into the question the loss to any employer, that is not realized, because it does not appear in the pay envelope, but is hidden in the cost of doing business and is assumed to be a necessary evil in the expense of conducting such a business.

This is hard to express in terms of dollars and cents, but from our records I believe I have found a way to make it clear. In this department a skilled employe makes $24 per week and (on the basis of unproductive factory expense of 130 per cent) it costs $31.20 additional expense for his production. Our records show that a new man will have an average earning power of only $10 per week over a period of the first six weeks. For each skilled man who turns out $24 worth of productive work per week we have an overhead expense of $31.20 in this department. Now for this $31.20 we secure from a skilled worker a certain number of pieces of productive work represented by his earnings of $24 per week. From a new man the average for six weeks is less than one-half the work turned out by a skilled worker, as shown by his average earnings of $10 per week.

It is not fair to say that this man turning out only $10 of productive labor will cost us as much in unproductive factory expense as the man who turns out $24 of productive labor, but there are certain charges that must be assumed, that can properly be figured on the basis of a man charge, rather than a charge to a unit of production.

The only credit the new man would have would be in expense materials, that is, materials such as emery, grindstones and kindred items, where the greater the production the greater the consumption of such expense materials should be. This is based on the assumption that the learner will not use more of such expense materials in proportion than the experienced man, although it is a well-known fact that this is not correct. A learner always uses more expense material per unit of production than an experienced man.

In this department the factory expense materials are 50 per cent of the total factory expense charges, and in our figures we are going to disregard any excess charge for the extra amount of materials used by the inexperienced men. This, however, leaves

us with 50 per cent of the unproductive expense of $31.20 which we pay for the $24 production of the experienced man, or $15.60, which we must charge to the $10 production of the new man. This charge of $15.60 covers only such expenses as foremen, instructors' and inspectors' wages, power, heat and light, repairs of all kinds, etc., or such expenses as must be assumed by the man unit no matter what his production is. In other words, it costs as much in such expenses for the $10 production as it does for the $24 production.

On the basis of an expense of $15.60 for a $10 production the percentage is 156 per cent instead of the 130 per cent we pay for the $24 production, or a net excess cost to us of 26 per cent, or $2.60 per week, or for six weeks an excess of $15.60. During the following six weeks, which complete the twelve weeks we figure are necessary to produce an experienced man, this excess cost becomes less due to increased production, but if we cut it in half it is six weeks at $1.30, or a total of $7.80.

These three amounts total an excess cost to us of $65.40 to break in a new man in this one department. These figures are based on the assumption that every man we hire stays with us long enough to become an experienced man, but our records show that we hire six men for this one job before we obtain one who stays with us long enough to become skilled. If we added to the $65.40 the actual cost of breaking in and training the five men who do not stay, the final cost to us of replacing an experienced man with a green man, whom we have to train, would be so much higher as to be staggering. As a matter of fact our records of total excess cost in this department, not analyzed as I have done, but taken in bulk and divided by the number of men trained over a given period, show the final cost to us per experienced man to be over $100.

In this analysis I have purposely left out of consideration all expenses, such as interviewing and hiring men, loss in defective work, and have charged nothing for money invested in equipment which we lose on account of low production. You may not have the same plan of payment, but by taking any plan you have and figuring in all collateral charges, such as we have ignored, you will find that the average of $40 per man, mentioned by various authorities, is extremely low. This cost is brought out to show you how great the prize is if you can by any method reduce your labor turnover.

WHY WE STARTED AN EMPLOYMENT DEPARTMENT

The work of the Philadelphia Association for the Discussion of Employment Problems opened our eyes to the importance of a better system of hiring and firing men. Our system had been the lack of system used by the average employer. When we needed men, our foremen hired what men they could get through their friends, and the balance were picked up in the early morning from the floaters found at the door of every factory daily, and it is hard to conceive of a more undesirable source of supply. This method is so bad in its results that I do not intend to dwell upon it but will relate actual occurrences that crystallized our ideas as to starting an employment department. We heard one of our foremen interview an applicant one day when our need for men was urgent, and the way he handled him opened our eyes as to the possibilities for evil under such a system.

We had at that time, when labor was plentiful, a scheme of partial remuneration, different from that outlined above. When the foreman appeared on the scene, after the man had been waiting almost an hour, he approached him in a belligerent attitude, with—

"Do you want a job?"

The answer was "yes," and an inquiry as to the kind of work. This was answered in a monosyllable, and then the applicant asked what the job paid. With no attempt to explain the method of remuneration the applicant was informed that we started men in and they could make fifteen cents an hour but would soon learn and get more money.

The applicant said, "I could not work for fifteen cents an hour."

The foreman snarled, "Hell! You don't want work," and left the applicant standing in the hallway, with a blank look on his face.

At about the same period we advertised for men, and our office was filled daily in the early morning, and when the foremen had grabbed off as many as they needed in point of numbers, they paid no attention to the balance, but would instruct an office boy to tell the applicant that all jobs were filled.

One day we received a letter from a workman who had noticed the advertisement, and wrote relating his experience in answering a previous advertisement from our factory. He stated that he did not want to try it again. He pointed out the fact that he had spent an hour and a half in the early morning to get to the factory

at a cost of twenty cents, a loss of an hour in waiting at the factory, and the fact that he had eventually been dismissed by an office boy with no opportunity to see an executive.

He was exceedingly bitter and deservedly so. We wrote him a personal letter, apologized for such a condition, and promised him it would never occur again to any applicant and I don't believe it ever has. The injustice of such a method, coupled with the ruinous effect it must have on our reputation made such an impression that the whole subject was taken up with the board of directors and it was finally decided to create an employment department.

START OF EMPLOYMENT DEPARTMENT

When we had definitely decided to create this department, we knew that we had to make haste slowly, but that there were certain definite lines of policy that must be laid down at the beginning. The first step was the selection of the heads of the department. We finally decided that it must be in the hands of men with knowledge of our factory processes, men big enough to analyze conditions, and important enough in position to have at all times access to, and the hearty coöperation of, our executives, as we realized that employment problem studies would eventually lead to considerable changes in shop conditions. We finally placed entire charge in the hands of our assistant superintendent, Mr. William D. Plumb, together with our comptroller and cost accountant, Mr. James A. Mellon.

The reason we selected these men was because we figured that the job had two sides. We selected our assistant superintendent because he was constantly in personal touch with the men throughout the factory, was also, through his daily routine, familiar with shop conditions, and in the best of position to investigate complaints at first hand. We selected the head of the cost department as this department was to be linked up with the employment department and was to keep all records necessary to take care of the information needed for a successful solution of our employment problems. The cost department in our organization is cold blooded as to figures, and we wanted them to show what progress we were making in dollars and cents and at the same time act as a check on any proposed expenditure suggested by the employment department that did not promise to bring results in dollars and cents. The question of taking

from the foreman the authority to hire and fire workmen was carefully considered, but not definitely decided in advance, as it seemed such a serious problem.

We finally called a conference of our officers, the new employment managers, whom we had selected, and our two superintendents, to discuss fully all questions connected with the establishment of the department. There was very little discussion as to matters of general policy, until we approached the question of taking the hiring and firing out of the hands of the foremen. Both of our superintendents were opposed to doing this, and while they granted that we could possibly solve the hiring part, they saw great obstacles in the way of taking from the foremen the authority to fire men. The greatest objection was raised on their honest conviction, that taking this authority away, would weaken the foremen in the eyes of the men, and break down all discipline. We argued the matter for some time, raising hypothetical questions of what could happen in a department where it would be necessary for a foreman to exert his authority at once, or lose his hold on his workmen.

All cases were met with logical answers covering all points brought up as far as we could foresee them, and we all finally agreed that the advantages far outweighed the disadvantages, and the employment department was created with the full consent of all concerned. The work of the new department was outlined as follows:

Memorandum, March 30, 1916

1. The employment department is to examine and hire men. Requisitions for men from various departments are to be sent to the employment department by the foremen. From these requisitions the department is to get men to fill positions by advertising or from other sources of supply which it will be necessary for the department to create.

2. The employment manager is to watch the men after they are employed, keeping records of the work, and to see that the employe is brought up to the standard of the department, one thought being that we should adopt an efficiency schedule, and if a man cannot make good in the time set for him he will either be discharged, or, if he shows any adaptability for other work, placed in another department.

3. After some discussion the general thought of the conference was that employes could neither quit nor be discharged without the signature of the employment manager. This would enable the employment manager to find out causes for men leaving, and while he might not be able to retain the men it would

show him our weakness if any exists and enable him to eradicate it with future employes. The signature of the employment manager on the discharge slip of an employe would likewise make foremen more careful as to recommending the discharge of a man without a just cause.

4. The employment department would keep records of absences of employes, general efficiency and all items of this kind bearing on a man's value to the plant. This will be worked out by this department and is entirely in their hands.

5. It was definitely decided that requisitions for employes presented by foremen must be O. K.'d by the superintendent in order to keep him in touch with the general situation.

How We Started

We had nothing but an application blank on which to start, and no place except the hallway of the main office to interview applicants, but nevertheless we put the plan into effect at once and notified the foremen of the new procedure. Considering the effect of such a change to the foremen it was accepted with a better spirit than we expected. From the foreman's standpoint he was giving up a great deal more than we perhaps realized. He had been accustomed to an autocratic control of his department and he was rendered homage by his acquaintances through being the man who could place them in positions when he so willed it. Adulation is incense to most men, and they were no exception. Suffice it to say at this point, however, that we have never had any real friction with the foremen on either point.

One of the first benefits we derived was in freeing the foremen from the daily necessity of looking over men they needed at the factory door. Under the old system, the first hour of each morning and the most critical hour from a departmental standpoint, was signalized by the absence of foremen from their departments. The new system automatically changed this, and foremen were free to supervise work in their own departments, rather than lose hours daily in interviewing applicants for work. This has worked out so well in actual practice that I question if we have in our organization today a foreman who would go back to the old method of hiring, and we unquestionably would not. In addition to lost time, which can be more profitably spent in their own work, foremen as a class have not a broad enough viewpoint to select men dispassionately, nor have they the opportunity to select them. Quite often you will find, on account of the foremen, cliques built up within a department

due to nationality, creed or secret societies. This is not always intentional, but is created because the foreman draws from his only source of supply, viz: his own friends and associates.

As to the firing end of the proposition there are many arguments against leaving this power with the foremen, but the following seems to my mind pertinent enough to point out the weakness of the practice: Factory managers check up their foremen on all material they use; watch them to see that the machinery is in good condition and save every penny they can by careful supervision, but when it comes to firing men, they give the foremen full sway, because the potential value of $50 to $100 invested in that man is not shown in hard cash and is therefore overlooked.

The employment department found right at the start that they were handicapped by lack of facilities for interviewing applicants, and it was definitely decided that we should build an employment office for the purpose of housing the new department. Their preliminary studies had convinced the managers that valuable space was taken up by lockers and departmental wash-room facilities, so the suggestion was made that we combine with the building for the employment department, a service building for the men, with sanitary lockers for each individual, good wash-room facilities and shower baths. This was done, and the building has been in service since July, 1916, and has undoubtedly had a great moral as well as physical effect on our workmen, in addition to the valuable and much needed space which it has released for greater productive capacity in several departments.

It was soon apparent that it was necessary to keep a system of records of each individual from the time he made his application until the time he left our employ for any reason, and time and study has brought into daily use the forms herewith, which I shall try to make clear to you.

FORMS IN USE

The following are a set of forms which we find necessary to use in our work.

I Requisition for help sent to employment department signed by foreman. On reverse side we have printed a new employe slip, which gives a record of the man sent to fill the requisition.

FORM I

REQUISITION FOR HELP

Always use this form when in need of help and whenever possible notify Employment Department one week ahead.

2.16. 1917

Employment Dept.:

Please employ for Dept. *18* one *man* age *21* to *40* with the following qualities *Some experience if possible or strong sober man*

Kind of work wanted for *Polishing*

Wages to start *New rates* Chances of advancement *Piece work*

Steady or temporary work *Steady* When needed *at once*

Signature *John McMullin* Dept. *18*

II Application blank. All the questions we ask seem to us pertinent, and the answers give us a line on the applicant's desirability.

FORM II

APPLICATION FOR POSITION

No. *1831* Date *2/24 1917*

Name *John Sobritski* Address *4623 Milnor St.* Read Eng. *No*

Married✓ Single Age *33* yrs. Wt. *165* lbs. Height *5* ft. *10* ins. Write *No* Speak *A little*

Last Employed at *Henry Disston & Sons* Address *Tacony*

How long *6 months* Why Released *Change of residence.*

LAST 4 PLACES YOU WORKED

Place *Rowlands Spring Shop* How long *1 year* Why Quit *small pay*

Place *Barrett* How long *6 months* Why Quit *dissatisfied*

Place *Germantown Tool Co.* How long *2 months* Why Quit *too far*

Place *Fayette R. Plumb* How long *2 years* Why Quit *to go to Germantown*

Wages Earned *11.50 to 20.00* Time✓ Piece✓ Wages Expected *Piece work*

Kind of Work Done *Labor & Polishing*

Kind of Work Desired *Polishing* Nationality *Polish*

Remarks *Good polisher on edge tools. Quit because we called him for smoking in grinding room.*

III Employes' record card. This gives an analysis of the man's record with us, and is used to make notes for future reference.

FORM III

EMPLOYES RECORD CARD

Dept. *18* Date *2/24* 1917

No. *1831* Name *Sobritski, John* Age *33* Address *4623 Milnor Street*

Nationality *Polish* Languages Spoken, Eng. *A little* Read Eng. *No* Write Eng. *No*

Societies *Two* Married ✓ Single Children 3 Rate per Hr. *New Rate*

Change of Wages										
	Date									
	Rate									

Employment ceased *5/17/18* ✓ Quit—Layed Off—Discharged

Cause *To go to Detroit*

Remarks *May return. Gave week's notice. Good man—take him back if he comes.*

Approved O. K. Signed *W. D. Plumb*

Approved Signed

IV Record card of work done and hours worked.

This card shows not only the kind of work done but the hours worked and the amount earned; in other words, it is a continuous payroll record for each particular man. This is valuable in our work as we are able to assort these cards by classes of work done, and quite often settle disputes as well as use them as a basis of records for the adjustment of wage rates.

In one case we stopped what seemed to be a serious walkout of twelve men, all working on the same kind of tools. They sent a delegation to the employment department with a request for more money, pointing out that the work was hard and that some men could make only $14 to $16 per week; that the men who made high wages were exceptionally able workers, and that their pay was not a fair basis for comparison with the average men.

By taking the cards of all the men on this particular work, our employment manager was able to show the delegation that the low wage men were not working full time but were the loafers of the department, and that on the basis of the hours worked they were earning as much per hour as the high wage men on this class of work.

The delegation was so convinced of the fairness of our position that the trouble died before it was born.

FORM IV

NAME *John Sobritski*

Week	Description of Work	Hours	W.O.	Reason for being out		Pay	
3/1	*Polishing* *A. E. Nail 1½* *B. S. Hand 2* *Engineers*	*30*	*22½*	*Moving* *Bonus* .37	*Day Rate* 7.50	*7*	*50*
3/8	*Polishing* *A. E. Nail 1½* *" " " 2*	*52½*		*Bonus* 1.31	*Day Rate* 10.50 *Piece 2.65*	*13*	*15*

V Pass issued to workmen to leave the factory and reasons given. No workman can go out without a pass.

FORM V

Dept. *18*	Date *5/12/17*	
Name *John Sobritski*	No. *1831*	Reason
Pass out at 10.15 and excuse		*Work caught up.*
Dept. Head *John McMullin*	Supt. *H. T. Jackson*	

FORM VI

VI Slip for a man who is discharged or quits. Must be signed by the employment manager.

No. *1831* Date *5/7* 1917

Please pay to *John Sobritski* Dept. *18*

wages for week ending *5/17/18*

Dept. Head *John McMullin*

Left ✓ Discharged

Cause *To go to Detroit to polish auto parts*

Empl. Agt. *William D. Plumb*

This slip must be signed by Employment Agt. if employe is leaving.

SPECIFICATIONS FOR HIRING WORKMEN

While we have not gone far enough to indulge in psychological tests in the selection of workmen, and do not differentiate between blondes and brunettes, we have found it necessary to have certain standards for the use of our employment department, and from our experience we have drafted a partial set of rules and specifications to assist in selecting the right men for each particular job.

These rules are as follows:

HIRING MEN

Be courteous; be patient; remember you have much to do with "labor's" opinion of the factory.

If we have the kind of work the applicant wants, give it to him, provided he is strong enough, does not seem to be a floater and has no infirmity.

If we haven't the kind of work he wants, try to interest him in something that is similar to it.

WHEN HIRING MEN, DO AS FOLLOWS

I Ask them what kind of work they have been doing. If they haven't been doing any work similar to ours, ask them the kind of work they want. If they say *labor*, they are possible for following jobs, provided they come up to the requirements necessary for the several jobs: yard, trucking, grinding, tempering, polishing and heating.

If they ask for something in our line they are ready for application blanks.

II If applicant wants work in which we have no opening, or doesn't want work we have, do not bother with application blank unless he seems especially good.

III Make out, or, if they are able to do it, have applicants make out application blank.

IV If applicant wants work in our line, find out experience or reasons for wanting job.

V If applicant comes up to requirements, explain to him carefully: the job, the pay, the bonus system, the card system, the hours and the fact that he must give a week's notice before leaving to get pay in full, and that we hold back a week's pay. Finally tell him that the employment department is always ready to straighten out any misunderstanding he may have.

For Grinders the Best to Draw From Are

Nationality. Polish, Lithuanians or Americans, experienced grinders, or Americans that want to try it after being told that the job is hard work, wet work and that the majority of the men are Polish, but the job pays good money. Ask them if they are ever troubled with their backs or rheumatism.

Physique. Generally strong and big boned. Some small wiry ones make good, but not many of them. Explain: must wear glasses, boots and aprons, which we furnish, for wet grinding, and for which they pay at the rate of $1 per week.

Forgers in Department 14. Boys for back of press; must be at least eighteen years old, big boned, either American or American Pole. Remember that we want one that can work up to drop hammer.

Heaters. Men over twenty-one years. Used to working in heat. A man that has worked in a rolling mill or any forging shop. Either American or Polish.

Drop or Pressmen. Transfer good heater. No heaters available, get old forgers on foreman's list. No one available, take men over twenty-five with intelligence and strong physique.

Handlers. Americans over twenty-one. Men accustomed to using a hammer preferred, such as carpenter's helper or chipper.

Finishers. Girls sixteen or over. Americans or Italian, former preferred. Some experience in factory work. Neat about clothing, without cheap finery. Better if they are not "flirty" and live at home.

Packers. Americans, experienced packers preferred. In any case must be able to read and write well, must be reasonably neat, enough to show carefulness.

Handle Belters. Americans or Italian. Eighteen to twenty-five. Strong wrists and quick movers.

There are similar instructions in regard to other classes of employes, but these will be sufficient to show the extent to which we have gone thus far.

What We Have Accomplished

When I asked our employment department what they had accomplished the answer was "Not much. We have hardly scratched the surface as yet."

Realizing that they had been in actual working order in their new building only since July, 1916, or a period of eight months, a search of their records hardly bears out such an answer, but when the problems to be solved are so many they evidently feel that what they have done is but a drop in the bucket. I propose to point out some of the things they have accomplished and leave it to your judgment if they are not at least on the way.

1. A BONUS SYSTEM

The employment department found that one of the greatest evils from which we suffered was continued lateness, continued absence, and workmen quitting at the drop of the hat. To discourage these practices, and reward good workmen, they proposed and we adopted a bonus system as follows:

A. A workman receives an additional 5 per cent of his weekly pay providing he turns in a perfect weekly time card as to attendance. Excused only if sent home by foreman, or loses time due to injury incurred at factory.

B. Receives another 5 per cent for maintaining the standard of a good workman. It is assumed that all employes have maintained this standard, unless they are reported to the contrary by their foremen or the superintendents. This is deducted in extreme cases only.

C. While workman is credited with the bonus from the day he starts, he must work three months before he obtains it. If he quits or is discharged before this time he receives no bonus.

D. The bonus is paid by check, and a workman may leave his bonus on deposit with the firm, and receive 6 per cent annually, payable semi-annually.

We now have about forty-one bonus books on deposit. We have greatly improved the conditions, and feel that it has been a wise expenditure, but experience has proved that it needed stiffening and we have added a ruling that seems to be having the desired effect. The ruling is as follows, viz:

"If an employe loses time three weeks in succession except for reasons covered by provided excuses, he forfeits his rights to his entire bonus, until he shows a perfect time card for one week. He is notified that if he continues this delinquency, he is not considered desirable."

By showing delinquents how much they are losing in cold cash, by being late and losing time, they are made to realize that it does not pay.

2. Reduction from Fifty-seven and One-half to Fifty-two and One-half Hours

During the period when men were so hard to get we tried to analyze the causes for men either not hiring with us or not staying with us and the employment department made the following report as to one of the contributing causes:

> Our work from its very nature is hard and laborious, tiring men out compared with work in the average factory. We figure that in order to hold our men, and make our plant attractive to new men, it is necessary to reduce our week from fifty-seven and one-half hours to fifty-two and one-half hours, with no reduction in pay. We figure that it will not decrease our production, but will raise it.

After some discussion their report was adopted and on December 4, 1916, all day rates were raised so that the pay equalled or slightly bettered on a fifty-two and one-half hour basis the old pay on a fifty-seven and one-half hour basis. All piece rates were carefully analyzed and adjusted in every case where the shorter hours affected the pay of the producers. The results speak for themselves. The men felt better and appreciated our action. It is much easier to hire men than before. The weekly production, in one of our worst departments in spite of the shorter hours, has increased 18.4 per cent and in the entire plant 10 per cent.

3. Reform Within a Department

One of our departments demanded personal investigation, as we found it impossible to keep men or to maintain production. An analysis by the employment department showed poor shop conditions in many phases.

A. Inadequate artificial lighting at dusk, so bad that no one but the individual workman bent over his work could tell what he was doing. This part of room dark and cheerless.

B. Bad drainage in the rear of the machines, which were fed with water. The water collected in spots. This section of the department had a dank unwholesome smell.

C. The foreman was inefficient, had no control over his men, and therefore none over his department. He wasted most of his

time doing clerical work that he dragged out over almost the entire day. The men who worked under him were as a class heavy drinkers and independent, worked when they wanted to and quit when they wanted to.

The following remedies were suggested and adopted:

A. Improved lighting. One hundred watt mazda lamps were installed every twenty feet.

B. Drain was put in which took care of all excess water, relieving both the discomfort and odor.

C. The foreman was discharged, and a capable man from another department put in his place.

This move stiffened up discipline, and improved the personnel of the department.

D. The entire layout was inspected, safety guards put on all machines where there was any chance of a workman getting injured. Everything possible was done to make the operation of the machines safe and convenient for the men.

E. Two instructors were installed to teach new men.

F. All piece rates were carefully analyzed and prices adjusted so that there were no "good jobs" and "bad jobs." They were all made "fair and square jobs."

Rates were equalized and set so that men could make an average sum per hour on any kind of work done in the department. Since then there have been several adjustments and still a few to make, but we keep in close touch with the work, and "raise before we are compelled to." This is the department that increased production 18.4 per cent with five hours per week less running time, and last month had the largest production in the past three years. This attention to details has already proven it has paid, through the reduction in overhead per unit of production in this department.

4. Interviews with Men Who Quit

As all men are paid off through the employment department, even the men who quit without notice must return to the department to be paid wages due. All others must secure the signature of the employment manager if they give notice or are discharged, so we have a chance to interview all dissatisfied men and some of the results are illuminating.

When men quit or are discharged they have no reason for withholding information. Complaints are heard of nagging foreman, lost time in waiting for work, and other complaints bearing on shop efficiency. Those are investigated, and if the fault is with us it is remedied.

These complaints brought to light the weakness of one of our best foremen. He always had a "chip on his shoulder," approached his men with that attitude and caused a great deal of friction before this fault was discovered. A talk by our superintendent convinced him that while that sort of attitude may have been all right ten years ago, "it can't be done" now. Another man quit, and on being asked for reasons, stated that he had to lose too much time waiting for one indispensable tool, and for material for his work. Likewise was advised that his work was O. K. by one inspector, only to finish it up and have half a day's work thrown back by another inspector. An investigation proved that the man was justified; the case was settled, and the man is still with us. As he was an experienced hand in the department in which I stated it cost us $100 to "break in" a new man, it looks as though this was a fair day's work.

5. Transfers in the Factory

This was something never attempted. If a man did not suit his foreman, he was fired and no questions asked. Now we look into unsatisfactory cases, try to find the cause, remedy it if we can, and if we can't, try to locate the unsatisfactory man in another department. We have one young man, of undoubted ability, good personality, pleasant and obliging. He became a regular Monday absentee, took all that was told to him as a reprimand with a lackadaisical air, and had evidently lost his "pep." We found upon investigation that he was fast becoming disgusted with his outlook, and felt that he was up against a blank wall. We transferred him to a semi-executive position in another department, gave him larger responsibilities, and a larger salary, and he has more than made good. Another man was a boss trucker, who made a flat failure of the job. He was then made head inspector of one of our hardest departments, and has done wonders in bringing up the general efficiency of the department. He was temperamentally unfitted for one job, and fitted for the other.

6. Actual Accomplishments

I will not inflict upon you any details of labor turnover, but will simply point out the reduction in the number of men who quit since the department has been in operation. Taking April, 1916, as a basis, during the month of July, one of our worst months on account of heat, the number of men who quit was reduced 25 per cent. This work has been steadily improving and in January, 1917, the reduction on the same basis was 48 per cent. Since the installation of the employment department, we have decreased our working force 10 per cent, reduced our working time almost 9 per cent, and increased our total shop production 10 per cent.

7. Indirect Benefits

When we first started the employment department our men looked on it with suspicion, as being another one of the things the boss was trying to put over on them, under the guise of service. This attitude of mind is common, and is no more than is to be expected, because of the past relations of employe and employer. Vanderbilt's phrase, "the public be damned," has been paraphrased over and over again with the "men be damned" and the "boss be damned." Recollect that this feeling has been handed down from father to son, and is bred in the bone. It is the survival of the days when "to the victor belongs the spoils," and "might is right."

We are now on the threshold of better things. Employes know and workmen are learning that their interests are identical. One cannot be prosperous without the other. This, however, is the new viewpoint, and has only made headway within the past ten years, and we cannot expect to wipe out generations of suspicion and misunderstanding over night. Our employment department has adopted as its motto, "put yourself in his place," patiently listens to complaints, and does not make the common error of believing that lack of education actually means lack of knowledge. Workmen do not put their kicks in the purest English, although sometimes they adorn them with the strongest. Our men have learned that the employment department is built for them, that it is a place where they get a square deal, and that they will be treated right on all occasions.

To show you how far we have gone I will cite the way disputes were handled before and have been since the creation of this depart-

ment. Formerly men would stop work in a bunch demanding something, and refuse to return to work until it was granted. In one case they gave us one hour to consider a question involving fifty men in one department, and before we had time to even digest the demand the hour was up and they walked out. Since April, 1916, we have had no strikes and no threats. We have had two requests, and the men have stayed at work until a decision was reached. If our employment department had done nothing but produce this feeling of personal responsibility to each other on the part of the men and on the part of the firm, it would have justified its existence and its cost.

In conclusion I feel that in the study of employment problems we are trying to solve issues ages old, and while the reward is great from the standpoint of efficient factory management the reward is still greater if we can but help to solve the principle of humanity involved, and so insure that coöperation without which we can make no progress, and with which the watchword will be "prosperity for all" and not "prosperity for one."

THE REDUCTION OF LABOR TURNOVER IN THE PLIMPTON PRESS

By Mrs. Jane C. Williams,

Employment Manager, Plimpton Press, Norwood, Mass.

The manufacturing of books is the business of The Plimpton Press and this industry is divided into three classes of work: typesetting, printing and binding. About seven years ago, the Taylor system of scientific management was introduced, and at the same time, an employment department was established, whose immediate object was to centralize in one department the hiring, disciplining and discharging. As the new system of management by gradual processes effected economics in the cost of production, so the employment department enlarged its scope and in time became responsible for savings in the human cost of this industry.

One of the early results of the improved methods of handling materials, routing, etc., was to show that the plant was overmanned and the number of people employed was reduced from between 800 and 900 to approximately 500. This change took place over a period of three years and was not brought about by discharging. When an employe left, he was not replaced by hiring a new worker, but by transferring from within. The working force at the present time numbers about 500, 300 of whom are men while 200 are women.

The management of The Plimpton Press, realizing that a large part of the workers' lives is spent within the factory, endeavors to make the surroundings acceptable. The work rooms are high and there is no crowding of workers; in fact, more space is allowed to each person than usually is found in offices or class rooms. This fact of ample room, especially around each machine, accounts in large measure, we believe, for the low percentage of accidents. The work rooms are well supplied with windows and these furnish proper light and ventilation. The entire lighting system, both natural and artificial, has been studied by experts, and work benches and machines are so arranged that no eye strain can result to the workers.

The nature of the work is clean and there is an ample force constantly at work to keep the factory clean. This effort meets with

much approbation on the part of the people who readily complain at any omission. The lighting, ventilation and cleaning are a part of the responsibility of the factory nurse.

THE WORK OF THE NURSE

A trained nurse is in charge of the hospital, including an office, a rest room and a surgical room, located in the central part of the factory. Here all accidents and illnesses are cared for. The accidents consist chiefly of minor cuts and bruises, and since these are given proper care at once, the danger from infection is minimized and very little time is lost to the worker because of accident hazards. The book-binding industry, owing to its use of heavy machinery, is not as a whole free from maiming injuries. The low percentage of such injuries which we have experienced in the last eight years, we believe is due to the following causes: proper lighting, ample work space, guarded machinery, care in selection of operators and freedom from hurry.

In addition to the first-aid service, the nurse performs much preventive and educational work in the plant and social service in the community. The personal contact resulting from the various activities of the service department has made it possible to get in touch with home conditions. The visiting of homes was brought about gradually and at first only by the expressed wish of the individual. Now such visits are welcomed and the nurse visits all who are away from work more than one day.

The results of the work of the nurse cannot be overestimated. She has opportunities for closer relations with workers than has any other person. She hears directly and indirectly of dissatisfactions which would not otherwise be known. When her vision is broad, she brings about a sympathy between the viewpoints of the employer and employe.

PROBLEMS DUE TO SEASONAL DEMAND

A large part of the work done by The Plimpton Press is the making of school text-books, and the seasonal character of this work is due to the fact that school boards make their adoptions late in the school year. In consequence, the peak of the production curve occurs during July and August and the lowest point during January and February. This in turn affects the workers, as some reduction

in the force and in the hours of employment is inevitable. Every effort is made by the sales department to counteract this condition by procuring work for the dull season and a measure of success is resulting. Besides this, the following methods have been adopted: every worker is taught several operations so that he may be transferred from one department to another as the work fluctuates; the minimum force is retained as the permanent force; and this force is increased only when absolutely necessary. In this minimum force, there is very little turnover, 81 per cent of the entire number having been in the employ of the The Plimpton Press over five years; 27 per cent, over ten years.

The work hours are from 7:30 to 5:15, or eight and three quarters hours daily, with one hour allowed for lunch, except on Saturdays, when the hours are 7:30 to 11:45, making forty-eight hours per week. This applies to all workers. There is very little overtime and no Sunday or holiday work.

Rest periods of ten minutes morning and afternoon are given to routine workers, such as monotype keyboarders, gold layers and the accounting force, and during this time the windows in these rooms are open. These periods also furnish an opportunity for the worker to take some exercise.

SOURCE AND NATURE OF THE LABOR SUPPLY

The Plimpton Press is located in a community which is able to furnish a large part of the necessary supply of labor. The policy of filling vacancies by promotion within the ranks results in the hiring chiefly of unskilled workers who usually are young. Through friendly relations with the public school officials and teachers, a valuable source of supply for this type of employe is available. Another equally helpful source is found in the present workers who are glad to recommend their friends. In addition, many applicants come of their own accord to apply for work, so that there is a long list of applicants ever available. Under terms of agreement with the trades unions, they have the privilege of supplying workers from among their number, provided they can fill the requirements. If a skilled worker is hired, he usually is obtained in this way.

All candidates for work, except porters, must be English-speaking and have the equivalent of at least a grammar school education.

Each applicant is interviewed by the employment department and asked to fill out an application blank which is kept on file. On the back of this form are later written the impressions of the interviewer and such other information as may indicate the desirability of the applicant. In this interview, an effort is made to make the applicant feel at ease in order that we may judge of the natural person. It is most desirable to know something of his tastes, his natural aptitudes and his ambitions. One of the chief purposes of the interview is to determine the probable attitude of the worker toward the organization. A person is never hired on the day when he first applies for work, as it is desirable to consider the applicant apart from the first appearance which he makes.

In order to get at just the requirements necessary for each job, work is now being done on "job analyses," which means a careful analysis of each particular job in its relation to each particular worker. This includes, besides the time study of the job, a careful study of the home conditions, temperament and age of the worker, all physical surroundings of the workplace, such as air, accessibility to toilets, rest periods, possibilities of sitting, ventilation, light, noise, any nervous strain resulting from the nature of the work, methods of payment, relations of this job to the rest of the organization, and all other features which may make that job different from any other job. This job analysis should show just the proper requirements for the best kind of worker on that particular job, and enable the employment department to choose that individual who will suffer least from working in that particular position, as well as bring the best results in point of production.

The efforts to steady employment by transferring workers from one department to another as work fluctuates necessitate, in making a selection of a worker, the consideration of two factors: first, the adaptability of the worker to the particular job in question; and second, the adaptability to the two or three other jobs at which the applicant may be called upon to work; that is, given two applicants, one especially well adapted to the particular job for which he is being considered, the other, though not so well adapted for that particular job, better fitted for the group of jobs at which he may be required to work during dull periods, the selection would be made of the second worker.

INITIATING A NEW EMPLOYE

It is the purpose of the employment department when hiring a new worker to tell him something of the general policies and standards. The candidate is then taken to the factory nurse, who questions him in regard to his health and who explains some of the special features of the service department. If the applicant is a girl, she is introduced to the head of the department in which she is to work. She is also taken to her workplace, introduced to those who will become her fellow-workers, given a key to a locker, and told of such other features as may be desirable for her to know. If the person hired is a boy or a man, he is taken to the head of the department, who in turn takes him to his workplace and follows a similar procedure. The first impression made upon the employe is most important, as at no other time is his mind so open.

The group boss in charge of any group of workers, which in practice does not number more than ten, is responsible for all instruction in regard to the work to be taught to the new employe. There are also written instructions relating to the performance of all tasks. Responsibility for all other training and education rests with the employment department. In this field of activity, the aim is to assist the employe in developing his own abilities and in discovering latent capacities if they exist, and to make opportunities for their use in this plant if possible. It sometimes happens that this business does not furnish the best avenues for future growth and in these cases, attempts are made by this department to find the right environment for the worker elsewhere.

The employment department keeps in touch with the newly appointed employes by interviewing them at least once a month to see that they are fitted for their work, are given such assistance as they may need, and to find out how they react to the work. A record is kept of each employe from the time of his employment. Information in regard to age, education, marriage, parentage, nationality, number of dependents and previous employment is obtained from the application blank. Dates of increase in pay, transfer, etc., together with reasons for the same, are entered as they occur. On the back of the sheet, spaces are provided for entries, once every thirteen weeks, for:

(a) An estimate of the excellence or the reverse of the discipline which the worker has maintained;

(b) His efficiency as determined by his bonus earnings in departments where a bonus is paid;

(c) The name of the group boss in consultation with whom the employment manager has formulated his report;

(d) The total number of hours during that period the individual was employed, the hours he was out on his own time, and the bonus hours he made;

(e) His total earnings as shown by the payroll. Space is also provided for items concerning the worker which may affect his work, such as home conditions, etc.

It is with a view to finding out what the average weekly wage per year is for each worker that this record is made, which shall show quarterly the exact amount of money each one has acutally taken home during that period. It does not so much matter to the worker what his rate per hour or per week may be. The important thing to him is the amount he earns over a period of time. A man's hourly rate may be high, but if he has short time, his wages are still small. Unless actual figures covering a definite length of time are periodically brought to the attention of someone whose business it is to safeguard the interests of the employe, many maladjustments of wages escape even a well-intentioned management which believes wages are high because rates are so.

It is the custom to consider each employe once at least in every six months to ascertain whether or not he is deserving of an increase in pay, and if he is, it usually is granted. If he is not deserving of an increase, he is interviewed and the reasons for withholding the raise are talked over with him. This increase in pay continues until the rate equals the union scale.

DISCHARGE AND DISCIPLINE

The authority for final discharge rests with the head of the employment department. Group bosses or others in authority may recommend for discharge and, if upon investigation of the case in hand and presentation of proper data on both sides, it seems desirable that the worker be discharged, it devolves upon the employment manager to perform that duty. Individuals may, if they feel that the decision is unfair, take the matter to the works manager, but this privilege has never been used. An employe has the privilege at any time of taking a complaint to the employment department or works manager.

Discipline is reduced to a minimum by the system of manage-

ment which is self-disciplinary in its operation, but such matters as require discipline are usually attended to by the employment manager. A joint committee to consider all grievances brought before it has worked well. This committee consists of a union representative, usually the president of the local union, a representative from the department where the grievance occurs, the works manager, who represents the firm, and the employment manager, who is a neutral party on the committee. A great variety of subjects are brought before this committee, as for example, such questions as certain piece workers doing a little extra work during the noon hour, rearrangement of locker rooms, distribution of work, and similar matters. Questions of pay which are not concerned with union agreements, but merely affect a special piece of work, are also brought up for discussion at these meetings. So far all grievances have been discussed and settled on a basis of facts and to the mutual satisfaction of all parties concerned. The great benefit resulting from these meetings has been the training of the members to look at the various questions from point of fact rather than from tradition or someone's personal opinion. Once facts are established, there is seldom any argument as to the right action.

IMPORTANCE OF MAINTAINING CLOSE CONTACT

Realizing that any group in society advances only as its individual members advance, the employment department endeavors to know each worker individually, and this is brought about not only by direct methods, but by other avenues which it has at its command for getting into close touch with the employes. An important channel is the library, consisting of several hundred books of nearly every description. Fiction is most sought for, of course, but there is a demand for technical books, travels, music, art, etc. Foreigners are often very glad to be shown what kind of books to read, and it is possible frequently to give them almost a graded course. Many of them read philosophy, history, economics, etc., and are grateful for help in the selection of their books. Others of course need a much simpler line of reading, but follow suggestions readily. Technical and trade magazines are sent monthly to those likely to be interested in the special contents.

As a result of observation of the faulty habits of diet prevailing among those who brought lunches, the project of establishing a lunch

room was discussed with a number of the employes. The idea met with such hearty coöperation that three years ago a small lunch room was started. Food is served at cost, and, with the exception of the cook, service is voluntary, being given by members of the office force. Practically no one suffering from indigestion now reports to the hospital in the afternoon.

Recreational activities outside of the factory are not now carried on. Norwood has a civic center of exceptional excellence where gymnasiums, swimming pool, bowling alleys, dance halls, club rooms, sewing and millinery classes, etc., are open to all by the payment of a small fee.

The employes, with the coöperation of the management, have organized two voluntary associations, The Plimpton Savings Bureau and the Plimpton Mutual Benefit Association. The management of both associations is controlled entirely by the employes.

THE OPERATION OF THE SAVINGS BUREAU

The Savings Bureau was founded with the object of promoting thrift among the employes, 80 per cent of whom are members. Annual deposits total usually about $15,000 and the present balance is $11,000. A depositor is required to pledge a stipulated weekly amount of from ten cents up, but he may deposit as much more as he chooses any week. Withdrawals may be made at any time. Each department has its own collector and collections are made on the weekly pay day. Interest on deposits is paid at the rate of 4½ per cent per annum. Many people save money for their insurance, rent, other periodic bills, vacations and Christmas in this way. Depositors may borrow sums not exceeding $100 upon furnishing proper security. Where workers have fallen victims to loan sharks, installment buying, etc., it has been possible in many cases, to make arrangements, by means of weekly deposits in the bank, to pay off these debts. At the same time, the man learns something of thrift in saving for future needs.

As an example of the kind of work that has been done through the bank, the following illustration may be of interest. A man who had been in our employ for a number of years and whose work was proving more and more unsatisfactory, finally had three assignments upon his wages come in almost simultaneously. In taking the matter up with him in an effort to make an arrangement so that he could

obtain releases by paying into our bank a small amount on each one of these assignments weekly, he finally disclosed the condition of his home finances. He was very heavily in debt and was endeavoring to pay on about twenty back bills which covered a term of at least five years. Much of his money had gone foolishly, some of it for liquor and other equally unnecessary expenses, and both he and his wife had reached a hopeless state of mind. We were able to suggest many economies to them and help them make up a budget so that they saved something weekly in the bank for all monthly expenses, such as rent, insurance, and something toward all back bills. In a year's time, he had paid up two-thirds of his indebtedness and his work had improved sufficiently so that he had been given two increases owing to his added value to the business. He is now considered one of the best workers in his department. Although not an habitual drinker, he had been in the habit of celebrating on holidays. The instilled interest in his family affairs and expenses in contrast to his former indifference replaces his need for occasional dissipation.

THE MUTUAL BENEFIT ASSOCIATION

The Plimpton Mutual Benefit Association was organized six years ago to provide a sick and death benefit for its members. It is entirely self-supporting. Each member pays fifty cents monthly and may, upon presentation of a doctor's certificate, receive benefits of $7.50 per week for thirteen weeks, with a possible additional benefit for thirteen weeks more of $3.50 per week. In case of death, the beneficiaries receive $75.

All employes are insured under the Workmen's Compensation Act and each case in which compensation is due is carefully followed up by the nurse to see that full benefit is received. Compensation for accident, other than payment of hospital and doctor's bills, does not begin until two weeks from the date of injury. Realizing that many injuries do not require two weeks' absence and that loss of pay for the first two weeks is often the hardest part of the burden of accident, The Plimpton Press pays full wages for these two weeks to its injured employes when such injuries are not caused by wilfulness. The Press also furnishes at the local hospital a free bed which may be used by employes and their families.

An agency for insuring with the Massachusetts Savings Bank

Life Insurance is maintained. This is a state organization and furnishes insurance at a minimum expense.

METHODS OF PAYMENT

Four methods of payment operate in this plant:

(1) Salaries: These are paid to the office and administrative force.

(2) Hourly rate: These are paid to nearly 50 per cent of the entire force.

(3) Task and bonus: Task and bonus is paid to about 43 per cent of the force. This method consists of a flat wage rate which the worker receives in any case. In addition, a worker is given the opportunity to earn an additional amount by performing satisfactorily a certain fixed task.

(4) Piece rate.

Weekly rates of pay for women in the bindery working on an hourly or task and bonus basis are from $6 to $9.12 plus task bonus, which amounts to from $1 to $2. Piece workers average about $15 for a full week's work. The weekly rates for women in the composition department range from $6 to $22. In all departments the range is from $6 for the younger boys to $23 for journeymen, according to the operation each performs.

THE PROBLEM OF LABOR TURNOVER

Since 1912, the percentages of the labor turnover have been as follows:

1912	.186	1915	.13
1913	.22	1916	.35 (of this, 22 per cent was to increase the force and 13 per cent to replace losses.
1914	.18		

The problems of turnover so far as they affected this establishment had been successfully dealt with until the year 1916. This year presented entirely new problems and efforts to solve them are now being undertaken. A large percentage of the increase in turnover was among the unskilled workers. Among the new aspects the following are most prominent:

(a) The abnormally high rates of wages paid to unskilled labor drew many of this class to the cities and to other plants working on war contracts. We were unable to equal the rates.

(b) The unusual demand for labor made a scarcity of this commodity and as our busy season begins much later than those of other

industries in our locality, the best workers had been engaged before we went into the market. Consequently we were forced to hire a lower grade of help than in former years and they, in many cases, proved undesirable or unstable. There are two possible solutions to this problem—either to retain a larger working force or to increase our force at an earlier date.

(c) In accordance with agreements with the unions, they are given the first opportunity to furnish skilled workmen. This operates well when the union headquarters are in the same locality, but when they are in the city, as is the case with the Typographical and Pressmen's Unions, they furnish unstable force. Workers sent out to small towns naturally return to the city as soon as the opportunity presents itself. This problem brings up the question as to the advisability of training an even greater number of our own employes.

Every industry has problems of employment peculiar to itself, depending in a degree upon the nature of the work, but more especially upon the character of the personnel of the organization. Here innumerable variables enter. Policies which are welcomed by certain classes of society would quickly offend other classes, but in any organization success can come only in the measure of the spirit of coöperation. No class of person likes to be ruled and consequently a democratic internal organization proves to be most satisfactory. On the worker's side, the fact of his having a voice in government increases his self-respect and makes him more ready to take a sporting chance on the results. On the side of the management is the possibility of utilizing the vast fund of experience to be found in the ranks of the workers. Both sides gain the added strength of unity.

THE STANDARDIZATION OF WORKING ESSENTIALS

By Lillian Erskine,

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Next to the questions of wage, hour, and the substitution by the management of a spirit of coöperation for the military spirit of command, no factor contributes more to the reduction of the labor turnover than that of sanitary and hygienic working surroundings. Contrary to general belief, these need not be the monopoly of the newly built factory.

While the most recent standards of construction offer many advantages (especially along the line of natural ventilation and economic lighting), nevertheless, by means of mechanical exhaust systems, scientific illumination, and the installation of simple but adequate types of sanitary facilities, practically every handicap imposed by earlier structural defects may be overcome by the progressive employer.

Today there is no reason why the old-fashioned plant should not hope to hold as steady and efficient a force as its "model" competitor. Experience has shown that even the most costly alterations to improve the conditions of working premises eventually pay for themselves in increased efficiency of output, in the steadying of labor, in the reduction of time lost through illness and intemperance, and in a more uniform excellence of production. The employer who allows himself to be discouraged by apparent difficulties from furnishing the minimum hygienic requirements in his plant, must be prepared to compete at a disadvantage with those who (unlike himself) are getting a fair return in work for the wage they pay, from a non-shifting, contented, and physically fit working force.

The physical needs of the worker are no longer subject of speculation. We now know that the immemorial handicap to industrial efficiency is the fallacy that industry profits by gambling with the

limitations of the human body. The unregulated turnover (especially in the unskilled trades) has fostered our reliance on force, (which is measured by hours), rather than on strength, which should, be measured by years. In the skilled trades it has reconciled the American employer to a negative, rather than a positive, standard of health.

But the steady force in the regulated industry can only be made up of men capable of giving service six days out of seven. Moreover, they must give a uniform service that guarantees a steady, rather than a fluctuating, flow of production. And since the effect of the working environment upon the body of his employes is of incalculable importance to the employer, the standardization of hygienic essentials must be ranked by him with the questions of wage and hours, if the wastage of the turnover is to be satisfactorily eliminated from his plant.

GENERAL VENTILATION

Fresh air is the prime requisite for the conservation of physical efficiency. In an eight-hour day the worker breathes from 250 to 350 cubic feet, according to the vigor of his muscular exertion. How basic is the relation between vitality and the normal lung function, may be realized from the fact that respiration during the average workday represents an expenditure of energy expressed by the lifting of seven tons one foot. Whether, during those eight hours, there shall be a normal balance maintained between his expenditure of energy and the recuperative cell-building processes in his body, or a steady depletion of vitality and the accumulation in his system of the poisons of fatigue, depends largely upon the supply of oxygen in the air of the workroom. The body so poisoned is incapable of maintaining a 100 per cent efficiency of output, however desirous of good results its possessor may be. Above all, the body filled with poisons generated by the fatigue of lung-starvation craves a stimulant with increasing insistence at the end of each succeeding day.

Not only should air be reasonably pure, but in order to promote steadiness of output, it should never be allowed to stagnate, however ample the dimensions of the workroom. A lassitude that cannot be conquered, often characterizes departments where air space per capita is so far in excess of ordinary requirements, that systematic ventilation has been judged unnecessary. The forces of the

body may be said to act as secondary lungs; and scientific experiment has proved that these normal functions cannot be satisfactorily performed except under the constant stimulus of an air exchange that avoids extremes of temperature.

Unfortunately, for seven months of the year, reliance cannot be placed on direct ventilation from windows or skylights of the ordinary type. In every department a handful of men will be found who insist on working in an hermetically sealed room. One of the most costly handicaps of modern concrete or other tightly constructed factories is the fact that they are not practically self-ventilating in winter, as was the case with most of their rambling, loose-jointed and unsightly predecessors. The problems of maintaining adequate and draughtless air exchange, therefore, are of importance to the occupier of "model" premises, as well as to the employer in the old-type plant which has outgrown its quarters. And both must choose between the customary slow and costly decline of vitality on the part of their working force during half the year; or between a perpetual struggle to maintain so-called "natural ventilation" in their workrooms, in preference to the equable and reliable air-exchange guaranteed by a standardized mechanical exhaust system.

While an elaborate system of air conditioning may be essential in trade processes demanding absolute freedom from dust and uniform temperature; and while all heat-generating units should be provided with individual exhaust equipment that will remove the heat at its point of origin, the ordinary workroom does not require a costly ventilating installation, or one that calls for high expenditure of fan power for its operation.

The great essential is to maintain a satisfactory balance between the air drawn from the room, and the fresh air admitted to take its place. If the ingress openings be some three times the area of the egress openings; if they be uniformly distributed, and the air admitted be conveyed over warmed steam coils; the problem of a draughtless ventilation during the winter months should be solved to the satisfaction as well as the physical advantage of the workers. It must be borne in mind that the extreme of scientific air-conditioning is rarely popular among those in the shop; and, except in processes where the admission of outer dust or a radical change of temperature is fatal to the product, it is wiser to omit arbitrary pro-

hibition against an occasional opening of windows; even though the perfect operation of the exhaust system may be temporarily hampered thereby. The gradual education of the worker as to the benefits of clean air, and as to the best means of obtaining it in the factory during the cold season, is worth the expenditure of at least as much time on the part of the management, as that everywhere devoted to his education in the care and upkeep of equipment and tools.

In the case of heat-generating units, general ventilation affords no adequate relief to those directly exposed to radiation. A satisfactory type of hood consists of an inner and outer skin, with a free air space of several inches between the two; through which the air of the room is pulled at a velocity of several hundred feet per minute; thereby creating a layer of continually tempered and practically non-conducting air, between the hot inner hood and that next the workroom.

In certain incidental processes where the necessity for draughtless ventilation in limited areas makes mechanical ventilation unsatisfactory, it will be found that the adoption of muslin in lieu of glass in the lower panes of the ordinary window, gives relief from the dead air commonly endured. A medium grade muslin of light color is a better non-conductor of heat than glass. If it be renewed at intervals, it will not prevent a free exchange of air, or lessen the diffusion of light.

In the ventilation of foundries, (once one of the most difficult problems in industry), it has been proved that a type of construction either providing windows the entire length of the side walls of the building, with additional tiers in the roof monitor extending the full length of the structure, or a patented type of construction with an inverted roof-peak, movable side sash, and the standard window lighting area of 40 per cent of the floor space, insures satisfactory removal of smoke and gases; and provides (if vestibule entrances be insisted upon), a reasonably draughtless moulding floor.

It should be noted that the best results are obtained from pivoted monitor windows, (whatever be the industry), when they can be opened at full length; so that they may be changed from a vertical to a horizontal position. This swing through an arc of 90 degrees permits advantage to be taken of the direction of the prevailing wind; so that the strong air currents from the outside may create an upward draught by blowing over and through the monitor

itself, instead of down through the foundry or workroom, thereby counteracting the natural upward tendency of smoke, heat and gases.

DUST REMOVAL

The presence of animal, vegetable, metallic, or mineral dusts in the air of the workroom is a menace to the self-respect and vitality of the worker. When such dusts are, in addition, of a cutting or poisonous character, their hazard is increased a hundredfold.

When it is remembered that at each breath some sixty cubic inches of dust-laden air may be inhaled by a worker, the ultimate injury possible to the twenty square feet of surface of the 500,000,000 air cells of his lungs becomes apparent. In the case of buffers, grinders, and polishers, (before the days of mechanical exhaust protection), the tuberculosis mortality of the group exceeded 60 per cent, in contrast to the normal 14 per cent for the general registration area. Printers, subjected to lead dust and fume, show a consumption mortality in the neighborhood of 70 per cent. Almost as high are the records of potters exposed to flint dust, and of mill workers subjected to clouds of irritating wood dusts.

Aside, however, from questions of health, a dusty workroom inevitably lowers standards of shop discipline and output; induces chronic intemperance, (due to thirst engendered by congestion of the mucous membrane of the throat), and a general sense of physical malaise and depression; and commonly increases friction in personal relations with the foremen, among those whose normal recuperation from physical and nervous fatigue is made impossible by the unsanitary conditions of their working environment. While the direct financial loss involved in the waste of a majority of dusts and fumes in the workrooms is not of serious moment to the management, the indirect losses above noted justify the most rigid precautions for their control.

The secret of successful mechanical exhaust removal of dust and fume from working processes lies in its control at the point of origin. While this was once regarded as impractical in many industries, modern engineering experience has solved practically every working problem, whatever be the specific gravity of the dust or fume in question.

One of the greatest handicaps experienced by the manufacturer has been the vague character of the sanitary requirements in vogue

in different states. The terms "adequate" and "sufficient" have left him free to expend thousands of dollars on experiments, the results of which have too often given little of the protection to the health of the worker promised by irresponsible contractors. The defects in such installations result in most cases from too small trunk lines, thereby increasing skin friction; bad angles, inducing blocking of the pipes; overloaded fans; and poor construction materials.

The usual and inexpert practice in building a dust exhaust system, such as is required for buffing, polishing or grinding wheels, is to proportion the main suction pipe so that at all cross-sectional points it only equals the combined areas of the branch pipes entering the same; while the inlet of the exhauster used on such a system has an area that but equals the combined areas of all the branch pipes used on the system. For example, for twenty-five four-inch branch pipes the largest diameter of main pipe and exhauster would be twenty inches. A fifty-inch exhauster would have an inlet twenty inches in diameter; if it were necessary to get a suction-head at each branch pipe sufficiently strong to displace two inches of water in a pressure gauge (commonly called a U-shaped tube) it would require an actual velocity of 4,000 lineal feet per minute in the branches, and it would be necessary for the exhauster to handle 8,720 cubic feet of air. It would require approximately sixteen horse power to obtain these results.

This kind of a system should no longer be permitted. Standards based on actual working tests and experience prove that efficiency requires for twenty-five four-inch pipes a main pipe with, at all its cross-sectional points, an area 20 per cent larger than the combined areas of branch pipes entering the same. The inlet of the exhauster attached to the system must have an area 20 per cent larger than the combined areas of all branch connections on the system. For example, a system having twenty-five four-inch branch pipes would require an exhauster that has an inlet twenty-two inches in diameter; and the main pipe connected with this exhauster would taper, in accordance with the location of the branches, from the exhauster to the tail of the system. This kind of system would require a fifty-five-inch exhauster having a main pipe twenty-two inches in diameter; and to obtain a suction sufficient to displace two inches of water in a U-shaped tube, the air in each branch pipe would be obliged to have a velocity of 4,000 lineal feet per minute. The

exhauster would handle 8,720 cubic feet of air a minute; and the exhauster would take about twelve horse power to operate it.

While a distinct saving of 25 per cent in horse power is thus gained, this advantage, though important in itself, is greatly enhanced when it is understood that it is practically impossible to obtain a uniform suction in a system where the main duct and the exhauster inlet are based on areas equal to the combined areas of the branch connections.

The fact that a fifty-five-inch exhauster requires less horse power than a fifty-inch exhauster is due to the decreased friction in the twenty-two-inch main pipe, as compared with a twenty-inch main pipe, a decrease of strain which permits a lower speed and pressure. This saving in power should in itself be sufficient to decide the character of a blower installation. It has been demonstrated that blower systems built in accordance with the latter standards are more economical in point of operation, as well as more efficient in caring for dust.

Not only has general faulty construction delayed the achievement of satisfactory dust removal in a large range of industries, but employers have overlooked the fact that unless appropriate material be employed in blower systems, and every detail of construction aid the flow of air generated, desired results cannot be achieved, nor can they be maintained through a reasonable life of the system.

MATERIAL AND CONSTRUCTION DETAILS

All systems, except those handling acid fumes, should be made of galvanized sheet steel. For systems handling acid fumes the base material should be coated with an acid-resisting composition, or be made of tile or earthenware.

Table No. 1 [1]

Diameter of Pipe	
8″ or less	No. 24
9″ to 16″	No. 22
17″ to 24″	No. 20
25″ to 30″	No. 18
31″ up	No. 16

[1] It should be noted that the metal used in Table No. 1 is of lighter weight in accordance with the diameter of the pipe than in Table No. 2. Heavy dusts, that rapidly wear out the resisting surface should be conveyed in accordance with the specifications of the latter.

Table No. 2[1]

Diameter of Pipe	
8″ or less	No. 22
9″ to 16″	No. 20
17″ to 24″	No. 18
25″ up	No. 16

All elbows should be two gauges heavier than the pipe to which they are attached.

Riveting. All straight seams should be riveted with tinned rivets placed on not more than three-inch centers.

All round seams should be riveted as follows:

Diameter of Pipe	
4″ to 8″	4 rivets
9″ to 12″	5 rivets
13″ to 18″	6 rivets
19″ to 24″	7 rivets
25″ and larger	9″ centers

Where straight seams are made by means of a "groove or lock seam" riveting will not be necessary.

Soldering. All seams should be soldered air tight and edges coated.

Laps. All piping, etc., should have at least a one-inch lap placed in the direction of the flow of air.

Elbows. All elbows should be made on a radius in the throat of not less than one and one-half times the diameter of the elbow. No internal crimped edges should be used.

Collars. All pipe collars should enter the main pipes at an angle of forty-five degrees, and should be riveted and soldered to the main pipe.

Blast Gate. Every branch pipe should be fitted with a malleable iron blast gate with a slide attached to the gate.

Telescope Slip Joints. All telescope slip joints should be made with a wire edge or band iron. Slip should be two guages heavier than the outside pipe, and provided with a fastener to hold same in position.

Fan Inlet Connection. At the point where the piping connects with the suction side of the exhaust fan, there should be a detachable sleeve.

Automatic Fire Dampers. Wherever piping passes through a wall or floor or from one building to another, an automatic fire damper should be placed in the wall with blade of damper pointed toward the line of suction, and should be so hung on a fusible link that in case of fire the damper will drop into position and close the pipe.

Dust Separators. All exhaust fans handling dust or waste material should discharge into a dust separator which will separate the dust or material from the air. While it is not practicable to specify any particular dust separator, it is necessary to warn against installing a separator of too small a proportion as the resistance on the fan not only greatly increases the amount of horse power required, but also reduces the suction that should be obtained.

Supports. Separators should be set in structural steel frames and all piping suspended or supported with iron braces. All piping should be braced and supported at least every ten feet.

While in special installations the nature of the dust handled and its specific gravity and quantity may require a greater or less velocity of air, the minimum standard pull required for the average factory process demands that sufficient suction head shall be maintained in each branch pipe within fifteen inches of the hood, to displace two inches of water in a U-shaped tube.[2]

Aside from variations in the type of hood, and the air velocity required, all mechanical exhaust installations should conform to the standard details enumerated above.

FUME REMOVAL

In the case of processes generating fume, such as pickling, metal dipping in acid or alkali solutions, metal plating, involving cyanide fumes, and a wide range of nitrating operations, a special type of wooden, or metal box-like duct may be satisfactorily employed. This should extend along and above the back of the trough, or tank, or row of crocks; and should incline out and up from its narrow base of seven inches, at an angle of 115 degrees above the rising fumes.

The essentials of construction require that:

I—The main duct should have a cross sectional area at least equal to one-half the combined areas of exhaust openings.

II—The bottom of the main duct should be seven inches wide, and that the front should incline at an angle of 115 degrees to the bottom.

III—The exhaust openings with an area equal to 25 per cent of the area of the liquid giving off the fumes should be located as near the point of origin of the fumes as the nature of the work will permit.

IV—A velocity of air of 1,000 lineal feet per minute should be generated in each exhaust opening.

V—If sheet metal is used in the construction of the duct, an acid resisting paint should be used to prevent corrosion.

VI—The exhaust fan shall be treated with acid resisting paint to prevent corrosion.

In the case of steam removal, or the removal of excess heat, such as exists in a wide range of laundry processes, a type of hood

[2]Pressure should be taken by pressing the tube attachment over a small opening through the pipe, commonly known as the static method. Tests should always be made with all branches open and unobstructed.

has been evolved which practically encloses the steam or heat-generating unit, and yet permits the operative to retain unobstructed facilities for working.

The presence of humidity in the general air of the workroom, (usually due to localized generation of steam), is now generally recognized as a serious health risk, which invariably lowers vitality and efficiency. It is cause for congratulation that the warm-air method of steam-removal, based on the general mechanical ventilation of the room, has been superseded by the infinitely more satisfactory local type of installation, that catches the emanations before they are diffused.

An individual mechanical exhaust hood of a cabinet type is necessary in a variety of fume-generating processes, such as lacquering and spraying operations. While the specific gravity, or extremely volatile character of the substances employed, may dictate the location of the opening to the exhaust pipe, and the velocity of air-pull required; yet provided that the hood be ample, with a liberal overhang, and that a sufficient quantity of air at a low velocity be moved from the general vicinity of the operative, the air of the workroom should not be contaminated, nor should the health of the worker himself be endangered.

The subtle menace to physical efficiency involved in the employment of some fifty trade poisons in our ordinary industries, demands an absolute and localized control of every variety of their fumes and dust, if the standards of production are to be maintained by a steady force.

Lighting

The relation of eye strain to efficiency and general health, is a factor in every branch of employment from the office to the foundry. Glare may be as great a handicap to satisfactory work as the twilight once permitted in the molten metal, and in a variety of other trades.

The standardization of illumination necessary for satisfactory results in a thousand divisions of industrial production, calls for expert knowledge; based not only on the physical limitations of vision, but also on the character of the work handled, and the amount of application involved.

While manufacturing operations such as foundry work, rough

machining, rough assembly and rough bench work, ordinarily require no more illumination intensity than 1.25 to 2.50 foot candles, measured by means of a horizontal reference plane thirty inches above the floor, and a portable photometer or illuminator; fine manufacturing operations, such as fine lathe work, pattern, and tool making, require from four to six foot candles. Whenever natural light falls below these standards, artificial lighting must be employed; and may be roughly reckoned, with a good overhead system, on the basis that one candle power (spherical) per square foot of floor area, will produce an illumination of about three foot candles.

Natural Lighting. The economy of utilizing daylight in manufacturing operations is obvious; but structural handicaps, or the direct glare of sunlight, may offset many of its seeming advantages.

The three essentials of: first, sufficiency; second, continuity; and third, diffusion can only be obtained by the most careful and scientific calculations.

In the case of daylight illumination they are dependent upon (a) adequate window area; (b) means of reducing the intensity of direct sunlight; (c) supplementary lighting equipment for especially dark days and toward the close of winter days; and (d) interior wall and ceiling colorings as light as is practicable, and of a dull finish.

While limits of space forbid technical discussion of standardized methods of artificial lighting, the absolute economy to the employer resulting from the elimination of defective work, and lost time due to unsatisfactory illumination, as well as a reduction of accidents, should encourage the universal adoption of the best methods now obtainable.

Two facts should be especially borne in mind by those handling workers in the finer manufacturing operations. First, that the unshaded spotlight is a direct injury to both eyesight and quality of product; and second, that although hygienic working conditions may be relied upon to improve automatically the health and efficiency of the worker, no lighting, however perfect, can correct congenital or acquired defects of vision. For this reason, a competent oculist should second the work of the illuminating engineer; if the full value of the latter's labors is to be reaped by the employer.

WASHING AND DRESSING FACILITIES

In the conservation of the health and self-respect of the worker, as well as the reduction of intemperance, of shop friction, and of the labor turnover, no factor deserves greater emphasis than proper washing, dressing, lunch-room and sanitary facilities.

The man who leaves the plant unwashed and in his working clothes, (often saturated with sweat), is 80 per cent more liable to respiratory disease during seven months of the year than the worker who has washed up, and changed to street clothing, in a properly heated dressing room. Moreover, whatever the season, the man who starts home under the influence of the stimulus of bodily comfort which follows a bath and change to dry clothes, is much less liable to the temptation that waits behind the swinging doors of the saloon.

It is a mistake to feel that the essentials of hygiene demand the most costly type of installation. While cleanliness and convenience must be insured, a very simple equipment will often serve to revolutionize the general morale of the plant. But if the practice of washing and changing is to become uniform among all employes, no undue loss of time should be involved for the worker, attributable to cramped quarters, and to an inadequate scale of provisions.

The following standardizations are based on tested minimum requirements now in successful operation, and are adapted for a wide range of industries, including those handling large forces and more than one shift.

Washing Facilities. Washing facilities should consist of lavatory basins fitted with waste pipes and two spigots conveying hot and cold water; or troughs of enamel or similar smooth impervious material, fitted with waste pipes, but without plugs; and for every two feet of through-length, two spigots, conveying hot and cold water. Where basins are provided, there should be at least one basin for every five employes; and where troughs are provided, at least two feet of trough length for every five employes.

Where large numbers must be accommodated, especially in trades involving heat and dust, where the worker should strip to the waist in order to wash more thoroughly, a satisfactory substitute for the hot and cold water spigots is a perforated pipe, conveying tempered water, installed above the middle of the trough at a height above the edge of the trough of from eighteen inches to twenty-four inches. Stoppers should be pulled, so that all washing is done in running water; and a trough length of two feet to every five workers is also necessary, as in the case of the spigot installation.

Showers. In plants where the workers are exposed to dust, dirt, the handling of poisonous materials, excessive physical exertion, heat or humidity, efficiency requires the additional provision of shower baths in the proportion of one to every fifteen employes so exposed. These showers should be screened, and should be provided with movable wooden floor gratings and runways. Even in warm weather the chill of cement flooring is both disagreeable and unhygienic; and is largely responsible for the present aversion of the worker to the use of the typical factory shower installation.

Standard Minimum Dressing Room Facilities. Each worker should be provided with a clean place in which to change from street clothes to working clothing. A pipe-rail equipped with clothes hangers, and fastened high enough from the floor so as to prevent the clothes from dragging, may be acceptable; excepting when the workers are:

(a) Engaged in handling poisonous materials

(b) Exposed to injurious dust or fumes

(c) Exposed to excessive heat, humidity, or fatigue from physical exertion

Dressing Room. In such cases clean, lighted, ventilated and, when necessary, heated dressing rooms should be provided; separate from the workroom, but connected therewith. When poisonous materials are handled which expose the person of the worker to contamination, lockers should be provided, divided by perpendicular partitions, of a double type having the following dimensions: sixty inches high by twenty-four inches wide by twelve inches deep.

Single Lockers. Workers exposed to heat, humidity and excessive physical exertion should be provided with single type lockers having the following dimensions: sixty inches high by twelve inches wide by fifteen inches deep.

Much discomfort, and highly unsanitary conditions, may characterize the dressing rooms filled with solid steel lockers. The ideal arrangement is to connect the batteries of lockers with a mechanical exhaust system, which pulls a gentle current of air through their perforated bottoms, and out through the openings at the top. In absence of such ventilating method, however, it is especially essential that metal lockers be provided with perforated bottoms, shelves, and tops; and with fluted or perforated metal doors. The wire-mesh locker, while sanitary, is commonly unpopular with the higher grade employe.

Lunch Rooms. While all workers exposed to dangerous dusts or fumes should be provided with a lunch room, or rooms separate for the sexes, and apart from contaminated workrooms, their value to the employer in the interest of efficiency and the lessening of intemperance, makes their installation desirable in every grade of industry. The cold luncheon eaten in the workroom, is a demoralizing relic of standards long abandoned in other phases of shop organization; and is an anachronism in a plant where the relation of physical fitness to production is recognized.

As in the case of washing facilities, a simple equipment is usually satisfactory; cleanliness, light, warmth and good air are the prime essentials. Gas stoves or

steam tables on which food brought from home may be heated, are always popular; and the furnishing of milk, coffee, tea, soup, or a stew and bread and butter at a nominal charge, is an ultimate economy to the employer.

A word of warning may not be out of place to those who desire to establish a regular cafeteria lunch-room service. Unless the articles of food offered for the relatively hearty meal be of unexceptionable quality, both in material and cooking, the temptation to hurried over-eating will be found a serious handicap to production toward the end of the day. Provided, however, that the food be selected for its nutritive value; that its preparation insures ready digestion; and above all, that an extra time allowance of fifteen minutes be granted when the noon recess is ordinarily of but half an hour's duration, satisfactory improvement in the general health of the force, and a reduction of time lost through illness and intemperance, may be looked for.

Toilet Facilities. These should consist of one siphon action toilet bowl for each twenty persons or fraction thereof. Toilets should be frequently cleaned, well lighted, comfortably heated, and adequately ventilated to the outer air by a window or windows, except in cases where mechanical ventilation is permitted; and in addition, toilets should be separate for the sexes, and provided with vestibule entrances. Urinals, when deemed necessary, should be provided on a basis of one urinal for each fifty persons using same. Urinals should be properly flushed, and so installed as to prevent noxious odors from arising.

The plumbing used for washing and toilet installations should be made in conformity with the local requirements of the city wherein the plant is located. And special emphasis should be laid on the necessity for installing such facilities either under the roof of the main plant, or in buildings connected therewith by means of covered and warmed passageways, so that the exposure of the worker to chill and inclement weather may be eliminated.

Drinking Water. Drinking water should be furnished by means of sanitary bubbling drinking fountains, provided with pipe coils so arranged that they can be ice cooled during the summer months. The fountains should be of a type that prevents contamination from use.

Experience in every variety of industry intensifies the conviction of the fallacy of the belief that employes will either abuse, or fail to take advantage of, the sanitary and hygienic equipments above noted. Shop discipline now demands the same education of the worker along physical lines, which every foreman has long recognized as essential in the case of the actual routine methods of production. For the management of the modern plant to accept failure as the logical result of efforts to improve the efficiency of the human factor, is to accept a handicap which their competitors will overcome; and is to admit an incompetence in the handling of men, which would not be tolerated in the handling of their mechanical equipment.

RECOMMENDED STANDARD PRACTICE ON MEDICAL SUPERVISION IN DETROIT PLANTS[1]

The committee presents its report in two parts: first, the results of a personal investigation of Detroit plants; and second, some practical suggestions for building up medical supervision in these plants to a certain standard of efficiency. Both the investigation and constructive policy are divided into three parts: physical examination, sanitation, and health and accident supervision.

From the investigation of these plants we find the following:

The committee personally investigated over thirty plants, ranging from 280 to 42,000 employes. But although various phases of medical supervision are being launched as separate items, there are very few firms that approach what we would call an average standard of efficiency. For this reason our analysis must be more or less vague. There being no accepted standard here in Detroit and the work being frequently under the direction of untrained people, the results of statements made by some firms would not justify our placing the same value on them. But the hopeful part of the situation rests on the fact that except for a few who admittedly are so engrossed in their overwhelming prosperity of production as to be indifferent to the individual care of the operatives, most of the companies are most eager to initiate some adequate system of medical supervision, or bring what they have up to a recognized standard. It is with the hope of helping these that we submit the following.

There are four companies with physical examination on employment and one company with reëxaminations which occur and reöccur whenever the results of the first one seem to warrant them. In ten companies rejections of applications are made, mostly for

[1] The Welfare Managers group of the Detroit Executives' Club has recommended as standard practice the following report of a committee of physicians and welfare workers.

Acting with the coöperation of Helen Bacon, secretary of the group, who was formerly employment manager of women of the Western Electric Company of Chicago, this committee made personal studies of the medical departments of over thirty plants before drawing upon their own experience in industry to write the report. Dr. T. H. Mullen, of the C. R. Wilson Body Company, chairman, presented the recommendations of the committee at a meeting of the group on February 7, 1917. Signing them with him were Dr. E. H. Hanna, of the Cadillac Motor Car Company, a member of the National Conference Board of Physicians in Industrial Practice; Dr. W. A. Wilson, president of the Michigan Child Welfare Congress, and P. D. Hall, of the employment department of the Solvay Process Company.

Because of the fact that adequate medical supervision is far from common in industry and in no wise standardized, this report is interesting as an agreement upon principles by authorities in a number of plants.

venereal or skin diseases. Five companies give an age limit, the lowest forty, the highest fifty. One company rejects for any defect, venereal disease, tuberculosis, or over forty years, but allows drinking men. Three companies refuse drinkers. Eleven companies give some test for eye and ear and a few of these are really complete. Fourteen companies make some attempt to fit the man to the job for which he seems physically capable, yet without a physical examination, this is often impossible. One company has a follow-up system to fit or refit the man to the job and some file all applications and follow them up when men are needed.

SANITATION

Fourteen companies have some sort of committee on sanitation, and twenty-one have some sort of supervision of it. Only four companies have what we would consider very good toilets and of these four, only one company has an adequate number. Many have fair ones as far as type goes, but they are entirely inadequate to the number using them.

The same is true of drinking fountains. Some companies have them, and of a good type, but mostly so few in numbers as to make them almost ineffective. Only two approached the standard.

About half have paper towels, two have individual cloth ones, a few have roller towels and the rest none.

The floors are in better condition, some of them being very good and kept in good condition. In one plant where the floors are cement, rubber mats are supplied the men who stand; and from the men's say-so they are very satisfactory.

As to ventilation and lighting supervision, eight are considered good, some fair and the rest poor. Where new buildings are being constructed, this phase is being more carefully considered. One company has meetings of foremen to suggest lighting and ventilation improvements.

It was interesting to find two companies putting in laundries, and in one case the company will also wash the men's overalls.

HEALTH AND ACCIDENT SUPERVISION

On the whole the wash rooms are in only fair condition. In many cases no separate rooms are set apart, and in two cases the men and women wash together. One company has a fine basin and towel rack with individual towels for every ten; and they are put through in squads with plenty of time.

Locker rooms follow in most cases the condition of the wash rooms. Although some have steel lockers instead of the unsanitary wooden ones, only a very few begin to approach the number of employes. One company has a fine building under construction with full drying and ventilation system included.

The restaurants can be said to approach more of a standard, possibly because they must to a certain extent compete with those outside the plants. Some have tables only for the office force; some have separate tables in the same room for office and shop people; and a few have separate rooms or even buildings. One company has its restaurant divided into a serve-self and service sections, allowing office and shop men to use either side. Although the cost of the meal is increased slightly when given with service, many of the shop people prefer it to the serve-self side. Several of these restaurants are operated by outside caterers. Those operated by the plants themselves average a loss of 6 per cent. One company sells tickets on nearby restaurants at less than a single meal costs.

Though several firms maintain baseball, bowling or other athletic teams, only a few have an organized recreation unit; and in almost no instances are even these facilities utilized by the non-English speaking workmen. Yet these employes comprise the largest part of our working force, and have the least chance of securing such activities outside the plant.

Seven companies maintain a Mutual Benefit Society and two companies are considering establishing one.

Ten companies carry on some home investigation but only three of these attempt any educational work as a result of the investigations. In eight cases some visiting nurse work is done, but in most cases inadequate to the whole situation. Two companies are about to put such a system into operation.

With the exception of a very few, the hospital and first-aid rooms are pitifully inadequate or totally missing. Seven companies have paid physicians spending from one hour per day to their entire time at the plant. Others have doctors on call. Three companies have plant hospitals for the men with first-aid attendants. In these plants, drugs are furnished the men for minor ailments other than accidents. Here also advice is given as to physical condition whenever an employe wishes it. Several companies have outside medical contracts with hospital arrangements. Two companies have partial dispensaries. Two have work in first aid and minor treatments at the hands of an insurance company. And below these, medical supervision in some plants drops to the use of the clerical office or the lavatories. Two companies paying bonuses make report of minor injuries at once a condition of receipt of bonus as well as compensation. One company has a small laboratory and a part-time doctor studying occupational diseases. Ten companies put some attention on the care of occupational diseases; but possibly due to the fact that in many cases it is difficult to determine, the progress is not great. However, it is a great deal that this number of employers want to accept the responsibility.

To begin our constructive policy we advocate a physical examination for each new employe—not so much for the sake of rejec-

tion as to determine whether the man is physically fit for the job for which he is hired. If not, the doctor should indicate what jobs he might work at, without increasing any deficiency he may have. If a man's condition would allow him to work efficiently at any one job in a plant, we would not bar him from employment because he might not be fit for other jobs in the same plant. It is a fact that only 15 per cent of accidents and deaths are due to unsafe machines and unsafe places, the largest proportion being due to the unsafe man.

The arguments in favor of physical examination from the employer's standpoint are: (a) protection; (b) production; (c) coöperation.

It is evident why it is a protection to the employer to have the employe examined. Our industrial records will show any number of cases where the employe has attempted by fraudulent means to obtain large sums of money from his employer. For instance, a man injures his eye; examination shows him to be hopelessly blind. The employe says the accident made him blind when in reality he has been blind for months or years. A workman comes into the doctor's office with a swelling in his groin. It is a hernia. The workman says he got it lifting a box of material. We do not believe it, but how can we prove it if the man has not been examined? There are any number of defects which might similarly be uncovered had the man undergone a physical examination when hired.

The physically fit are in themselves much more able to increase the output of a factory or department, but besides that if we know those who are not physically fit, we may be able to place each one at a particular kind of work at which in spite of his defects he can produce as much as his physically fit fellow workman.

That spirit of coöperation is bound to occur where the workman is happy in the thought that in spite of his physical defect he can earn a good fat pay envelope and not accept it in a spirit of charity. Consequently he boosts his work, he boosts his employer and makes himself valuable in many ways.

On the other hand, the arguments from the employes' standpoint are that the employe is infinitely helped by being placed at work which he is physically able to do, and not having his life endangered, if he is suffering with myocarditis, by giving him a position where he is called upon to climb stairs, run lathes, or drill presses. The man with the poor eyesight is not put to work on fine grinding, tool making, etc. On the contrary he is set at work at which he can actually earn as much as his more fortunate brothers. And the fraudulent workman is eliminated from the ranks of the honest workman.

The advantage to a man in finding out his own physical deficiencies—maybe just in their beginning—is invaluable. But in this connection be careful that you make the man understand.

Especially if he is non-English speaking or English speaking but ignorant of the value of prophylactic or medical care, it will be necessary to spend more or less time in making him understand; but it will bring returns that will more than pay for time thus spent. Also, when both employer and employe know his physical status, a man is not going to claim benefits later for a deficiency he acquired previous to his present employment.

The subject of hernia is today causing considerable discussion, especially from a medico-legal standpoint, the standpoint of physical fitness, and finally from the standpoint of compensation.

Hernia is the protrusion of an organ through an abnormal opening of a containing cavity. Personally I lean to the opinion that true hernia (we are now speaking of abdominal and inguinal hernia in particular) is an inherited condition.

How often have we operated so-called recent traumatic hernia and found the sac thick and tough, showing its presence there for years, probably since birth. It is a fact that the courts hold in favor of the patient when the legal aspect is presented. A patient presents himself with an inguinal hernia, claiming it to have been caused by lifting this or that, or stepping a comparatively few inches downward while in your employ. The courts hold, as do most industrial boards, that the man is entitled to the benefits of compensation, when an operation upon the same man shows the hernia sac of the age of a lifetime.

Without fear of proof to the contrary, no man who ever lived, who was born and had reached the age of five to fifteen minutes without the presence of an abnormal opening in his abdominal wall, ever sustained a hernia through any force suddenly applied, no matter how great, unless that force was accompanied by a penetrating wound where the hernia appears.

A sac may exist for years and yet remain empty. When the bowel or omentum enters it from some strain or effort, the parts were long prepared to receive the extruding mass. This extrusion may occur gradually or suddenly. If the latter, the sufferer believes his hernia was formed then and there. But as a matter of fact, the extrusion of bowel or omentum and its entrance into the sac are but the last of a long series of antecedent and preparatory changes. The hernia appears and usually does so during effort. If extraordinary muscular effort is a cause and a sole cause of hernia, why are not all or nearly all of those men engaged in lifting occupations victims of the disease?

Heretofore all applicants who had only half vision were rejected. It is very important to examine both eyes. When an employe who has but one eye suffers the loss of sight of the sound eye, the employer is held under the law for the loss of both eyes. If the eyes appear subnormal in any way, special examination should be given

by an oculist. A general examination of the condition of the teeth should be followed, when necessary, by a detailed examination by a dentist. Eventually it may be worth while to have as part-time officers of the staff an oculist and a dentist.

In this connection we feel that it would be of mutual advantage for the doctor to advise regarding treatment and be allowed to receive the employe as a private case should the man desire it. In this way the doctor will become better acquainted with the condition of the employes and will not become stale as is the fear of the industrial surgeon in handling only one type of work.

The committee has drafted a standard examination record form like the example given.

PHYSICAL EXAMINATION BLANK

.....Company

Date Hired..... Date.....
Name.....Age.....No.....
Nationalty.....S.M.W. Trade.....
General Appearance.....Children.....
Have you ever had an operation?.....
What serious accidents or diseases have you had?.....
.....
R R Do you wear glasses?.....
Vision Hearing Are you ruptured?.....
L L
Signed.....

Deformities.....Ht.....In.....Wt.....Lbs.....
Extremities, varicose veins, flat foot, etc.....
.....Blood Pressure.....Urine S. G.....
Head, including nose, mouth, teeth, throat and neck.....
.....
.....
Heart, Lungs, Liver. Inguinal Region.....
.....
Is special examination recommended?.....If so, for what?.....
Remarks .....
.....
.....

This man is physically fit for { Any / Moderate / Only Light } Work
(Signed).....

If this record were used in all Detroit plants we would eventually have some data from which we could build our average manufacturing man, his possibilities and value.

In order to safeguard the interests of the other employes, we consider the following as legitimate causes for rejection: venereal diseases, tuberculosis, skin diseases of a contagious nature, eye diseases of a contagious nature, epilepsy if determinable, and any physical unfitness of non-contagious nature which would incapacitate

the man for the work for which he is hired. A deformity not interfering with effcient production would not be a cause for rejection.

Reëxamination will depend upon the condition at the time of employment, any defects being followed up as often as seem best to the examiner. The responsibility for seeing that stipulated reexaminations occur, and for sending for reëxamination any other case where a man seems below par, should be definitely placed on each foreman. Then, with consultations between him and the physician on his regular rounds, he should be able to keep a fair gauge on his men. And we even suggest a medical record book for each foreman so that during the shifting and changing, the medical supervision of the men will not suffer. Also, we would demand that all injuries, however slight, be sent to the first-aid room for treatment. This avoids very costly cases of infection. The foreman should be held responsible.

Where firms have rigid pension systems, age limits may seem necessary to safeguard the funds; but otherwise, we do not believe that except as it affects a man's physical fitness for a job any arbitrary age limit should be placed upon an applicant.

If an employe is affected by a disease traceable in its causes to his work or the conditions in a plant, his case should be given special care and he should receive compensation as in the case of accidents.

SANITARY ARRANGEMENTS

The sanitation of a plant should be under the supervision of a committee composed of the safety engineer, plant physician, nurse and welfare worker. The cause of each accident should be investigated by the safety engineer with a view to providing against a recurrence in the future. Frequent cases of sickness from any one section should be traced for a possible cause in the shops themselves. A stated round by the doctor would bring forth cases needing attention and each foreman could assist in making suggestions for better sanitation.

The material available on the subject of factory equipment in washrooms, locker rooms, toilets, drinking fountains, etc., is very limited, that is, such material as we can use for our report. No one seems to have figured these equipments out as to requirements per hundred men except in some very local situations, not at all fitting varied factory needs.

The following suggestions form what we might call the well-equipped plant, as seen by two sanitary engineers, a doctor, two safety engineers, four welfare men, and the suggestions of the manufacturers of sanitary plumbing, and the equipment of recognized leaders in factory completeness.[2]

[2] Where cuspidors are needed they should be placed on paper mats twenty inches in diameter and changed daily. Paper lined cuspidors are recommended.

	Lavatories	Toilets	Drinking Fountains	Lockers
Type.....	Individual	All Porcelain. No wood	Bubble type, arranged so lips do not touch metal	Perforated metal, slanting top to prevent accumulation of refuse
Located....	In central building near lockers	Substations near workers	Where convenient to workers	In central building
Number...	1 for 15 men	1 to 20 men	1 to 30 men	1 per man. If possible one compartment for work and one for shop clothes
Accessories.	Hot and cold water, liquid soap, paper towels	Automatic flush		Locked. Forced hot air ventilation to dry wet garments
Plumbing..	Open type, plain			
Special Features	Porcelain	Must have a forced air ventilation	In clean, light places	It is advisable to arrange locker so that men coming off work at same time have every second or third locker to prevent crowding
Note.....	Average time per man at wash basin 2½ minutes	Compartments should not have doors, as easier to keep clean		If lockers are near washbasins, a larger number can use both without waiting

The objection to paper towels, "that we do not get our hands dry enough to prevent chapping" can be done away with by a well ventilated, warm dressing room, where the hands will dry while dressing.

Where there are corners into which waste papers and refuse are thrown this can be largely eliminated by painting these corners white and lighting them well. One does not throw waste into clean corners.

Tile floors should be laid in all washrooms, etc., where possible, otherwise cement well drained. Oily floors should be scraped and swept daily. Where cement floors are used, rubber pads for the men to stand on will help in increasing comfort and efficiency. All

scrap metal should be kept clear of the workers. Many injuries have resulted from this in Detroit plants lately.

Since there is a special committee of the Industrial Welfare Managers' Association on sanitation, we will leave a detailed report on these phases to that committee.

A report on suggestions for forming a mutual aid association has just been completed by that committee of this association and will be mailed this week to each member of the association. About one-third of the poor commission cases of Detroit deal with industrial workers or their families and yet in most of these cases the industry is not responsible. For instance the cases can be roughly divided into: (1) accidents or sickness outside the plant; (2) tuberculosis; (3) desertion; and (4) when compensation has been exhausted. Now help for the first class, at least, would be obtainable from a mutual aid association, and would serve to bring the man back to the factory at the end of his disability instead of his leaving altogether and thus necessitating the breaking in of a new man. Group insurance would also help in this way.

We include good lunch room and recreation facilities among our prophylactic treatment but are leaving to the special committees on these phases, detailed reports of the work.

The following equipment we suggest to maintain an effective first-aid room or plant hospital.

This will depend necessarily on the number of men employed. In one Detroit plant of 8,000 employes, three physicians are kept constantly busy either on inside or outside work. Where a doctor is going to carry on successfully other phases of medical supervision besides emergency accident work, we think his supervision should not range higher than from 2,000 to 3,000 employes.

As to adequate hospital rooms, we consider a unit of 1,400 to 2,000 employes would require three rooms—a reception room, an examining room, a surgery or dressing room.

The furniture needed in a reception room is enough chairs so that patients will not have to stand, and a stretcher. The examining room should have a rest cot, scales and other incidental equipment with two or more booths to facilitate examinations. The surgery room needs an operating table, an instrument case with necessary first-aid instruments, drugs and dressings, one or more pedestal wash basins, and one waste can.

For plants of less size, at least one room, set aside for this purpose only, is absolutely necessary to carry on medical treatment successfully.

To show what nursing service the employes of Detroit manufacturing plants are getting—and without knowing it—we submit the following data.

Out of a total of 378 patients cared for during the month of

December, 1916, by the Visiting Nurse Association, there were 222 cases where the wage-earner was employed by a manufacturing firm.

A survey has just been completed by the Detroit Home Nursing Association of more than 10,000 homes of moderate means, and records were made of 2,000 cases of childbirth, 675 of which were cases where the wage-earner was employed by a manufacturing firm. In 653 cases of the 675 the husband acted as nurse at night; in 158 cases he stayed at home from work from one to four days; in thirty-one cases he stayed at home one week and in four cases two weeks.

The incomes of those 2,000 cases ranged as follows: 48 families received less than $60.00 per month; 406 families received $60.00 or less per month; 796 families received $60.00 to $100.00 per month; 642 families received $100.00 to $150.00 per month; and less than a dozen have incomes over $150.00 per month. The financial condition of the majority of these families prevents them from securing dispensary treatment, yet is not sufficient to leave much margin for medical care.

Of course this is only scattered service and covers but a small part of what a nurse could accomplish if she were wholly or in part employed by you. An industrial nurse and first-aid man should have the following duties:

1. First-aid and hospital work.
2. Rounds in plant for observation of employes and inspection of shops.
3. Health and hygiene classes or talks to employes.
4. Home visits for nursing sick employes.

There are two organizations which can be made use of if you have no factory nurse or if you want to demonstrate the actual use of such a worker. The Visiting Nurse Association will give trained nursing service at the rate of fifty cents a visit, or will take over the entire nursing responsibility of a plant at the salary of one nurse. The Detroit Home Nursing Association will give practical nursing service at $10.00 to $14.00 per week. This service is especially desirable where the woman is incapacitated to the extent of not being able to do her housework, care for the children and get her husband's meals. The service of such a woman would be cheaper than that of the husband if it would otherwise be necessary for him to remain at home.

In this connection let me also state that the Visiting Housekeepers Association will be glad to send workers into any homes to teach the women the economical planning of meals and family expenses. Several firms are now using this as a free agency and one company is paying the salary of a visiting housekeeper so as to have her entire services available for the employes of their plant.

Since you may not feel that your force is large enough to warrant (at least at first) a full-time physician and nurse, we suggest a grouping of small plants so that with a relatively small expense adequate skilled service can be secured. Later on as individual plants become more systematized in this work, it may be desirable to develop a central bureau for examination and employment. In this way much work could be accomplished regarding the turnover of labor and temporary transfers, and a standard of medical supervision developed which would greatly increase individual plant efficiency.

THE WORK AND SERVICE OF THE FACTORY NURSE IN MANUFACTURING PLANTS

By Nathalie C. Rudd.[1]

While any manufacturer who has established in his plant a welfare service or nursing department (the title is immaterial) will tell you that he "wants to feel that his people are cared for," this is but the expression on his part of the general attitude of managers nowadays that they wish to get at the mind of the people—to learn the underlying causes of industrial dissatisfaction. It seldom shows a knowledge of real conditions and needs. They have come to realize that a better mutual understanding must come about between employer and employe.

I think that the nurse, perhaps better than any other woman worker, placed in the midst of a body of working people, can offer the keynote for the betterment of conditions and the furtherance of harmony.

Hospital training alone will not have given a woman the ability to serve in this capacity; but where that vast opportunity for studying human nature at its frailest has been used to widen the sympathies—to "get the response" from all classes and conditions of people; and where it is added to a natural democratic spirit, an appreciation of the business viewpoint and an executive ability (in fact, the right personality) the nurse in her professional capacity has a wide sphere of usefulness before her in industry. Her qualifications might be tabulated as follows:

a. Has human sympathy and wins confidence
b. Has help to offer by remedies or advice
c. Has learned the value and dignity of *work*
d. Knows the necessity of cheerfulness, unselfishness and enthusiasm in daily intercourse
e. Is accustomed to look for symptoms as a means of diagnosis, and naturally uses this faculty in looking for causes that have produced certain effects

[1]For five years engaged in starting work of this character at The Plimpton Press, Norwood, Mass.

A SCHEDULE OF WORK VALUABLE

I believe that every nurse now engaged in industrial work was attracted by the thought of a new and great field of service, where wonderful reforms could be achieved. Where she has failed or lost courage it has been due to one of two reasons—either because the lure of the easier hours and the steadier salary than that accompanying general nurses' work has sapped her enthusiasms and weakened her efforts; or because the problems arising in the industrial world were so many, so conflicting, so apparently without solution, that she felt her work was without effect, and allowed it to become so. For the former class there is nothing to say. To the latter I would recommend the conscientious following of an outline or schedule of work: not for the checking up of achievements, but because in the following of such an outline one loses the feverish unrest which comes in trying to grasp the whole of the problem at once, and finds that the daily round of work, faithfully performed and studied, furnishes a mass of data—a knowledge of conditions and needs, which leads directly to results.

Outline

1 Treatment Room Work
  Methods: Few drugs. Show personal interest in every case. Instruction proper medical and surgical care
2 Visits throughout factory, covering every department frequently
  a. Follow-up on cases seen in treatment room
  b. Detection of incipient troubles
  c. Ventilation—cleaning—safety
  d. Orderliness and sanitation in toilets, lockers, etc.
  e. (Most important) General effect—"On the Job"
3 Calls on sick or absentees
  Not as spy, but as friend, a spirit always welcomed
4 Coöperation with doctors, clergy and outside interested parties
5 Help or advice in family troubles—medical, moral, social
6 Development of work in interest of employes: bank, library, lunch room, newspaper, benefit association
7 Outside social work in small groups
8 Coöperation in any work for civic betterment

Following such an outline furnishes plenty of occupation; occupation leads to a quiet mind; and it is only the quiet mind that can achieve. What use is to be made of all the various phases of human needs and peculiarities noted? Out of the knowledge and experi-

ence of the nurse, seeing the people in this new relationship, should come some valuable contributions towards the establishment of the much desired harmony. It seems to me that in looking for causes of disharmony our investigators are usually looking too far or too high. The causes of tremendous troubles are often very little things. Whole departments are upset by the ill-temper or arbitrary actions of one person—some little lack of consideration—perhaps partly justifiable. This is where the nurse fits in. She stands as the friend of the people; she sees things with their eyes; and then, because of her broader training and experience, and her wider viewpoint, she can often locate the festering spot that is the underlying cause of disturbance. She will stumble into things that show a great unfilled want in the lives of the people—things which may lead to the development of schemes to fill these needs—schemes bringing the employer and employe together and out of the development of which, greater mutual understanding is evolved.

THE DETAILS OF A DAY'S ROUTINE

Let us follow this outline a little way. The employes visiting the treatment room may number ten or one hundred a day (if the latter, the nurse needs an assistant from the start). Many of these cases will be minor accidents or infections. There may or may not be work to do in the investigation of the cause of the accident. It may be due to gross carelessness on the part of the injured person; it may be due to the nervousness produced by the over-arduous "boss"; it may be due to another's carelessness in leaving utensils in the way; it may be a defect in machinery. There, at any rate, is something to do in the line of instructions for proper surgical care—explanation of methods used—a little correction of the prevalent ideas as to the value of cobwebs or onions for surgical dressings. Some of our patients may have chronic disorders of stomach or head and seek a daily remedy. Such troubles may frequently be traced to neglected teeth, to eye strain, or to atrocious habits of diet, and it will take a long time to break down some of the traditions found in different industries and convince a man of the value of modern medical science. One has at times the worker who craves a stimulant to enable him to perform his task, and investigation shows a home condition that makes a night's rest impossible. I have had one employer, about to start elaborate "welfare work," say to me, "I don't

care anything about a man's sick babies or his outside affairs, I just want him well and happy here." That statement will not bear analysis, because it is doubtful if a man can be well and happy at his work if there are sick babies at home. And the nurse who follows every clue to a sick baby or other home conditions that affect the worker in the factory is fulfilling her highest obligation to her employer in his quest for well and happy employes.

The same thing applies to the hysterical or frequently ailing girl. Tragic things may be discovered in the life of the listless, uninterested factory girl. It is only fair to the management as well as humane to the girl to investigate these conditions, for the employer in the eyes of the world is usually bearing the blame. It is not enough even to locate the cause of the pallor and listlessness in the all-night dance. The good work is not ended until healthier pleasures and rational living are substituted; and it has been proven that the average girl can be made to see this from the health and the business standpoint. It was the frequent discovery of this condition in my recent work which led to the organization of a girls' club which met this need in the lives of over a hundred girls, and which furthermore taught them the principles of democracy, self-support and self-government. Does a girls' club seem remote from the employer's purpose in establishing a nurse in his factory? There is really a very close connection. More than one girl said in relation to her enjoyment of the club, "I have so much more to think about now. I can work better and the day goes faster." The day that goes fast is never a day of loafing.

The daily visits throughout the factory are a very essential feature of the work. Apart from the purpose of these trips as tabulated, they are absolutely necessary in order to produce a fellow-feeling. I do not know that the day will come when the man who sits in his office and wears his coat and his collar will cease to be an object of apparent disdain but real envy, among those honest people who labor with their hands. The nurse should early recognize this and let nothing interfere with a routine inspection of factory and workers. The management should grant this privilege and should give frequent opportunities for conferences with the nurse in relation to her findings or recommendations as to better sanitation or working conditions. Here, too, the nurse should be on her guard lest her suggestions lose force through a too strictly professional interpreta-

tion of hygiene. One cannot demand hospital standards of asepsis in a factory—nor is it at all necessary.

The nurse's attitude in the factory should be one of sympathy and interest, but she should always feel and give others the feeling that her highest duty to worker as well as to manager is to set a standard of better conditions—better health, and through these, to greater efficiency and value. This does not mean eliminating the weak in favor of the strong; neither on the other hand does it mean coddling the inefficient worker and concealing, because of a false standard of kindness, defects that must lead to incompetence. The nurse who accepts industrial work must accept it in its true meaning. She is not engaged to run an out-patient department for the handicapped. Her work is to develop high standards of health as a part of business efficiency, to see that all conditions are conducive to effecting this standard, and to inspire those for whom she is working with a zeal for these principles. It is astonishing to see how quickly the former habits of thought among the workers melt away when one labors in their midst, upheld by ideals of cleanliness of person, orderliness of rooms, courtesy of manner to each and every call, and a cheerful enduring energy, and love of work.

Equipment of the Nurse's Department

The nurse's department should be located if possible in a part of the plant free from the jar of machinery, where good cross-ventilation is possible. She should have a private office for consultations or conferences with any who want to see her. There should be a separate room for treatments, the size of this directly varying with the number of employes and the hazard of the occupation. Hot and cold running water should be in this room and there should be space for a couch where an injured person could be placed. The rest room should be quite separate from these rooms. It should have one or two couches, preferably rattan, and the walls should be tinted in some quiet tone that is not glaring. It should not be overfurnished, unless it is intended for use as a recreation room, when cushions, books, pictures and rugs may well be utilized. Having in mind a room strictly for the care of the sick I would recommend the simplest furnishings, suggesting repose in every way.

In the equipment of a treatment room it is surprising how little is required, apart from the few surgical instruments necessary in

case of accident or infection and the antiseptic solutions needed in this kind of work. The use of medicines is to be tabooed as much as possible. The morbid craving of the people at large for drugs as a relief to symptoms is certainly not to be encouraged by the nurse who is working for public health, and who knows that healthy recreation, better air in factory and at home, digestible food, proper rest and relaxation of nervous strain, are the things the people need, and that if drugs *could* bring about the desired result it would be wrong to recommend them. Another thing that the nurse must guard against is the tendency of the people to discuss sickness and past operations. Let her watchword be health and not sickness, and she will have a much better and quicker response to her efforts.

While it is not possible for the nurse to be always present in her rooms, if devoting time to outside calls and factory inspection as well, she should make provision for the care of accident or illness by giving training in first aid to some available person in the factory and her emergency and rest rooms should be open at all times.

The calls on sick or absent employes will always lead to a feeling of personal interest, if rightly handled; in fact very soon it will be regarded as an affront not to receive a call from the nurse if absent from work. She will find it essential to have friendly relations with the local physicians and clergymen and all relief and charitable organizations. The details of family troubles cannot all be handled by the nurse, but through coöperation with other agencies much can be effected.

The greater the expectation of the ultimate benefit of this work, the slower must be the initial steps. All the welfare features in a factory should be the outgrowth of the people's obvious needs and should be developed *with* the people. It is only in this way that they can succeed. I have seen mahogany furnished, expensively equipped libraries unused. In my own work, a little library of eight hundred volumes was patronized by two hundred readers, and the coming and going daily was a pleasant feature of the personal intercourse between departments.

STARTING A SAVINGS BUREAU

The development of a savings bureau was undertaken with the knowledge of two existing conditions. First, we knew that money was not wisely handled by our people, that it was chiefly a hand-to-

mouth policy that governed their expenditures, with no provision for the rainy day. We also know that a few of the more thrifty-minded were saving when possible, placing this money with some trusted fellow-worker, whose bookkeeping was of a primitive order, memory playing a large part in the management of these funds. This was so obviously unsafe and yet had so much of good in it that we utilized these trusted people as a part of the force in the savings bureau, all moneys being collected by them in their several departments and turned in to the treasurer, who was elected by vote of the people. We followed the habit already established in connection with their own savings plan, and savings bureau collections were made in the wake of the paymaster—obviously the psychic moment. Withdrawals might be made at any time, within twenty-four hours' notice to the treasurer. Interest was computed semi-annually at 4½ per cent. A loan department was developed in connection with the savings bureau, where money could be borrowed to the extent of the weekly salary, or larger amounts by giving collateral, the rate of interest being low. This was not intended to encourage the man who always lived ahead of his earnings, and the purpose of the loan had to be confided to some member of the loan committee. It was almost the invariable fact that the money so borrowed gave help that could not have been secured in any other way, in times of expensive illness at home, or when mortgage interest or taxes came due, or for the larger buying of winter fuel or supplies which enables the man with means to live so much more cheaply than his poorer brother.

When making the loan the borrower gave his written promise to make weekly deposits into the bureau until the sum borrowed, plus interest, should be accumulated. The entire transaction was on a business basis, and one could almost see self-respect grow as a man finally withdrew from his savings in the bureau the sum equal to his note and interest, and realized that without loss of dignity he had accomplished his ambitions and was clear from debt. The savings bureau apparently met another need. Before its start it was customary to hear from our girls, when vacation time was allotted, the rather bitter remark that a vacation without money did not mean much. This complaint entirely ceased; they all had money; it became the habit to save first, and it was almost without exception, on the withdrawal of money for whatever purpose, that the

statement was made, entirely unsolicited, "I would not have a cent of this money if it were not for this bank." At the close of the first year the total deposits for the year were approximately $5,000. At the close of the fourth year, with some four hundred depositors, the figure reached nearly $15,000, no one depositor having more than $500, interest being paid at the prevailing rate. The company agreed to use the savings bureau money, to the extent of $5,000, paying 5 per cent interest. Beyond this (apart from the money out on loans) it was invested by the executive board of the bureau.

ADVANTAGES OF A LUNCH ROOM

Whatever may be the response of a group of employes to certain features of welfare work, there is no question as to their response to the thought of a lunch room. If it be clean and attractive, if it serves good and plentiful food at reasonable prices, it will soon prove its need and there is no better means of reaching to the heart of the people (the avenue of the stomach has always been acknowledged as the straight road). The reasons for this particular development in our plant were: first, that one hundred people were eating cold lunches at noon; half as many more were taking a twenty-five minute walk to their homes for the purpose of getting a hot meal, which they had just ten minutes to eat. Numerous cases of after-lunch indigestion were due to this long hurried walk to and from home, which in the hot weather was extremely exhausting. The lunch room was planned with particular reference to serving an accessory to the lunch brought from home—a hot soup or cup of coffee, an attractive dessert or ice cream. A whole meal could be obtained, but the plan was not to entice people to spend their money; rather to make possible a nourishing noon repast at small cost.

This lunch room, equipped at a cash outlay of $400 (which did not cover carpentry or plumbing) served a daily average of seventy-five people, and on rainy days its service was stretched to accommodate nearly two hundred. The room used was a deserted basement office, hardly twenty by twenty feet. A young girl was trained by the nurse to do the cooking in the most careful and sanitary manner. The service was entirely voluntary, the food being served at the noon hour by the employment manager, the nurse and several of the stenographers who cheerfully gave part of their noon hour in return for the lunch. This voluntary service proved a very helpful factor

in furthering the democratic spirit which we wished for. It is hard to imagine any ulterior motive in one who, voluntarily and cheerfully, serves you hot soup over a counter daily. There was evidently something in the quality of this service which won the confidence of our people as no other effort had done. We felt that if hired help had been depended on in this service, or in the management of the lunch room, much would have been lost. We demonstrated that given the rent, light and gas, a lunch room of this capacity could maintain itself without loss, covering the cost of food and of cooking and cleaning. The responsibility for the running of the lunch room was shared with the people by making one person in each department responsible for the sale of the checks which were taken in payment for the food, no money being handled in the lunch room.

The development of welfare features will vary with the number of employes and the wealth of the corporation, but where there is a group of even one hundred employes, the work will repay the effort put into it, in loyalty and good-fellowship. I know nothing of its dollar and cents value and believe it could not be estimated. In the smallest developments, the system should be so complete and so thorough that it may be stretched to meet growing requirements.

Records should be kept, showing the length of service of each worker, the cause of his visits to the nurse, frequency of such visits, remedies, follow-up work, home visits, etc. Notes should also be made as to nationality, citizenship, standing in community, and interrelations with other workers. Such records will, in the course of time, give some valuable statistics in the comparison of departments, from the health viewpoint, and are further absolutely essential in order to keep in touch with the worker, as one cannot rely upon memory.

From the standpoint of the nurse, the work in an industrial plant has in it all the elements which make up a satisfying occupation. It deals not alone with the details of the moment, a routine filling every hour, nor alone with a large problem, out of the study of which one hopes to produce statistics and data which will aid in its solution, but it embodies both these conditions. The routine and daily work would be wasted in the long run were they not part of the study of the larger problem. The attempt to study this problem would be unsuccessful were not many methods devised for get-

ting close to the people—not only to serve their needs, but to see things with their eyes.

The work brings up all the conditions that relate to public health or social service work of any nature. From the outlook of public health the best reason for work inside a factory, in its value to the community, is because there one finds and can strike at the root of evils which are powerful in undermining health, and which are the target of the efforts of hospital clinics and social workers. The proper structure and care of toilets is closely allied to the work of the medical profession in finding the causes and cures of venereal disease, the destructive effects of which on innocent victims are daily shown in hospitals and clinics. The careful washing and sweeping of floors in industries where poisonous dusts accummulate is an effort in harmony with that branch of medicine which is seeking to prevent occupational disease.

It is therefore a work which is educational to the employer as well as the employed. I feel that when an employer has awakened so far as to realize that the force which turns out his product is composed of *people*—not machines or power, or money—but human beings like himself, this education has commenced. It is broadened when conditions affecting these people are brought to him again and again, and he sees that their point of view is the same as his would be, could places be changed. If still further he realizes that what affects the people to their detriment must, in its widening circle, affect the community, and ultimately, like a boomerang his own prospects, he will finally see that the first and last analysis reads very much like the old-fashioned golden rule. He will find then too, perhaps to his surprise, that he is one of the forces working for the public weal, when he had only intended to "keep his employes happy."

When our industries have recognized their responsibility for the human lives in their employ, and by compelling health and efficiency have raised the standards of the working people, there will be fewer derelicts to cast on the mercies of hospitals and charitable societies.

PERSONNEL AND MEDICAL AUDIT

THE SELECTION, TESTING, TRAINING AND WELFARE OF EMPLOYES

By F. E. Weakly,

Manager, Department of Efficiency, Montgomery Ward and Company of Chicago.

One of the biggest problems in our business aside from the fundamental one of making a profit is the study of our employes. Much time, thought and expense have been devoted to this subject of human relations and it seems as though our work has only begun.

The analysis and reduction of labor turnover depend upon a thorough knowledge of the employes as well as of the business itself. "Know thyself" was said several thousand years ago, but it has been left for modern industry to place a real interpretation upon it. Scientific management and efficiency methods have made it possible for us to appreciate in a way, at least, what it means to know yourself. This article, then, is only one chapter of a story dealing with how this business is endeavoring to learn and know itself. To know our faults is the first step forward in the correction of them. A scientific study and willingness to recognize the facts, as well as take definite steps to correct them, will strike a staggering wallop to labor turnover.

In order to get a clear understanding, we first began to study the reasons why employes leave. Quite naturally, in classifying these causes we were governed by local conditions in Chicago, as well as conditions in the plant.

The first thing we did was to take a map of the city and plot with colored tacks all the main sections of the city in which our employes live. This told an interesting story indeed. It enabled us to analyze transportation conditions; it explained why many people were constantly late—it was of immense use during the various street car and elevated strikes in enabling us to assist in getting our employes to and from work. It gave us something concrete. It aided us as well in suggesting proper places for new employes to live. Every new employe is now charted on the map

by the district of the city in which he lives. This shows on his card in the permanent index in the employment department.

WHY EMPLOYES LEAVE

We then made up a weekly employment record which lists under ten main heads the reasons why employes leave. This analysis gave the total number of "leavers" for a series of seventeen different payroll groups, as is shown in Chart A.

WEEKLY EMPLOYMENT RECORD

NUMBER OF EMPLOYEES ON PAYROLL WEEK ENDING			EMPLOYEES ADDED THIS WEEK			EMPLOYEES TAKEN FROM PAYROLL THIS WEEK											
Groups	1915	1916	New	From Other Divisions	Trans. to Other Divisions	To Take Other Position	To Stay at Home	Leaving City	Married	Amount of Health	Dis-satisfied	Unsatis-factory	No Reason	Short	Tem-porary	TOTAL	%
1																	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
14																	
16																	
17																	
TOTALS																	

CHART A

This chart began to furnish concrete data and enabled us to get at things. This report was made up weekly. In the course of time we began to accumulate comparative figures. This report did not tell us enough. Today the analysis of why employes leave is carried much further.

Classification of Causes for Removal from Payroll

Other Positions	1. Better Salary 2. Former Position 3. Going into Business 4. More Promising Position 5. Position Nearer Home 6. To Learn Trade 7. To Return to Trade
	Leaving City To Marry On Account of Health
Health	1. Own Accord 2. Number 98 (To Division Supt.'s a/c Dr.'s Orders)
Dissatisfied	1. Did Not Like Supervision 2. Distance Too Great 3. Refused Temporary Work 4. Refused to be Transferred 5. Resented Criticism 6. With Salary 7. Did Not Like Working Conditions 8. Work Too Hard
Unsatisfactory	1. Agitator 2. Carelessness 3. Dishonesty 4. Drinking 5. Fighting 6. Financial Difficulties 7. Indifference 8. Insubordination 9. Irregular Attendance 10. References 11. Superintendent's Private File 12. Suspected of Pilfering 13. Too Slow
	Reduction of Force
No Reason	1. To Go to School 2. To Stay at Home 3. Worked Less Than Two Weeks—Failed to Report 4. Worked More Than Two Weeks—Failed to Report

CHART B

Chart B shows a detailed analysis of the various causes, especially those causes in which we may or may not be directly to blame, and is the key for reading Chart C.

Miscellaneous Divisions		OTHER POSITIONS										DISSATISFIED							UNSATISFACTORY														NO REASON					
		1	2	3	4	5	6	7	Inv. Pay Off	In Injury	On Acct. of Health	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	9	10	11	12	In Inv. Pers	1	2	3	4		
	Totals																																					
97																																						
98-99																																						
00																																						
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P																																						
R																																						
S																																						
T																																						
U																																						
W																																						
Y																																						
Z																																						
Elev.																																						
R. R.																																						
S. R.																																						
W. H. Gen'l																																						
Frt. Pack.																																						
S. & Sh. Pkg.																																						
TOTAL																																						

CHART C

Chart C shows an analysis of "leavers" by detailed causes by department. Another chart is kept of the "leavers" in the various office departments similar to Chart C which covers the operating divisions.

Still another analysis is maintained to show a classification of "leavers" by department and by activity. This is illustrated in Chart D. Part I of Chart D shows the average length of service by the same classification.

It will be seen with this series of analyses carefully and regularly compiled we are able to know something about why people leave our employ. It is thus possible to put our finger upon the cause. We work upon the theory that to cure the disease, remove the cause instead of treating symptoms. The diagnoses which these several charts explain have enabled us to go quite a long way in understanding some of our labor turnover problems. At least we have obtained the facts, something tangible, a real basis upon which to work.

		97	99	80	81	83	85	86	50	60	61	62	63	64	48	etc.
	Total															
Checker																
Stock																
H. Order																
L. Order																
Frt. Pac.																
M. Pac.																
Wrapper																
Short Boy																
Sorter																
Section																
Nailer																
Paster										PART I						
S. R. Gen'l																
Truckers																
Pit Stock																
Hustler																
		97	99	80	81	83	85	86	50	60	61	62	63	64	48	etc.
Av. length of Ser.																
Checker																
Stock																
H. Order																
L. Order																
Frt. Pac.																
M. Pac.																
Wrapper																
Short Boy																
Sorter																
Section																
Nailer																
Paster										PART II						
S. R. Gen'l																
Truckers																
Pit Stock																
Hustler																

CHART D

The case of every employe who leaves is carefully investigated. If an employe fails to make good in one department on one class of work, due to no cause that would warrant immediate dismissal, he is tried on several jobs. This is always handled by the employment and educational departments.

A careful and intelligent effort is devoted to the proper placing of each individual. To aid in our selection of employes we have what might be called a vocational bureau, which is a part of our employment and educational work. The purpose of the bureau is to aid in the scientific selection and fitting of the worker to his task. Supplementing and working with the bureau is an activity we call "plant instructing" or teaching the worker on the job his or her specific task. We place a great deal of faith, first, in the proper selection of the employe; second, in the proper training of the employe.

A fact that we try to recognize is that all people are human. The application of this principle begins in the employment department. Every applicant for a position is interviewed courteously whether we have a position for him or not.

DEALING WITH NEW EMPLOYES

Now to understand just how the several plans work, I shall take as an illustration the case of a new applicant who has applied for a position as a checker in one of our merchandise divisions.

If the interview is satisfactory, the applicant fills out the application form. If this is found to be all right, she is sent to the vocational bureau where she is given a general intelligence test in accordance with the outline of the qualifications for her work, her job and herself as is outlined a little further on in this paper. If she fails to pass the test, she will be courteously talked to and an endeavor made to place her at work for which she is suited. If we have no such place, of course, we shall be unable to use her. If she passes the test, she will be sent to the medical department for a physical inspection. If she has no glaring physical defects that would seriously hamper her in her work, she is allowed to pass. Upon returning to the employment department she receives her assignment as a checker, the necessary forms are filled out to attach her name to the payroll and she passes to the educational depart-

ment for general instruction lasting usually about one hour. After three weeks she will be called by the medical department for a thorough examination.

The educational and welfare division is in active coöperation with all of our different departments in various ways. In the first place, it works with the employment department. All newly employed men and women come to this division for instructions and tests before going to their prospective tasks.

As a result of these tests over one period of time only three people whom the vocational bureau passed have failed to make good, while seventy-two have been prevented from being hired for work which they were really not capable of doing. If the figures were taken for an entire year, the results would be even more interesting. For instance, in our wall paper division, we tested forty-six men who were hired in a few days' time. Five of these forty-six men proved to be color blind and not one of them knew that he was color blind.

The instruction sets forth the nature of the business; the firm's ideals of service to the customers and sense of responsibility for its employes; and emphasizes the various welfare and educational features available for all employes. Women are advised by the woman head of the educational department concerning appropriate attire for business and are instructed in matters of hygiene and business ethics. Close personal contact enables our instructors to become better acquainted with these employes and helps them to discover the future possibilities of their pupils. For example, a young woman with a high school or business college training, capable of being a good stenographer, because she has been out of work a few months, or because she lacks confidence in her ability to take dictation in a strange place, accepts work in some minor position. In this case she receives a smaller salary than she is capable of earning, she loses that technique she strove to gain in order that she might place herself in a class beyond the one she is now filling. The instructor notes this situation and later, when there is an opening for a stenographer, this young woman will be allowed, along with others, to try out for the position. Her experience in the house makes her more valuable than a new candidate. The same plan is followed with the men by the head of the men's educational work. This illustrates in a measure at least how valuable a personnel audit at time of employment is for follow-up purposes.

ANALYZING THE WORKER

In order to broaden the scope of our study we next made an analysis of the worker herself. The following outline shows just how this was done:

I Checker's individual history covering service here and elsewhere
- A. Age
- B. Education
- C. Previous experience
- D. Length of service here
- E. Starting salary and advancement
- F. Natural activity
  - 1 Incentive
  - 2 Promotion
  - 3 Instruction
  - 4 Training

II Intelligence tests
- A. Accuracy
- B. Speed
- C. Native ability
- D. Ability to follow instructions

III Firm judgment
- A. Manager's and supervisor's opinion covering respective checkers
  - 1 Ranking
  - 2 Accuracy
  - 3 Speed grade

We next made an analysis of the work, which in this case is checking.

I Elements
- A. Familiar or routine work
  - 1 Comparison of figures
- B. Unfamiliar work or irregularities
  - 1 Description
  - 2 Sizing, marking and numbering items
  - 3 Substitutions
  - 4 Explanatory stamps
  - 5 Quantity
  - 6 Technical or trade terms
- C. Accuracy
  - 1 Relation to other activities
  - 2 Equipment
- D. Speed
- E. Instructions
  - 1 Printed
  - 2 Verbal

F. Training
G. Supervision
H. Promotion
  1 To other work
  2 From other work

After a careful analysis of the work and the worker we next determined the standard for the requirements or elements that go to make up the work of checking and, with the aid of the vocational bureau, a test was selected with which we were able to secure a grade on the desired qualifications. The outline of this test is as follows:

A. Comparison, or checking of familiar or routine work
  1 Accuracy
  2 Speed
B. Ability to meet or grasp a new and unfamiliar situation
  1 Accuracy
  2 Speed
C. Ability to follow instructions
D Native ability

The results obtained from the analysis and tests have made it possible for us to work toward a standard for girl order checkers.

I Classification
  A. New employes
    1 Experienced (six months)
      a. Clerk
      b. Clerical
      c. Age
        Preferable (21 years and over)
        Acceptable (18 years and over)
    2 Inexperienced
      a. Age (21 years and over)
  B. Transfer and promotion
    1 Age (18 years and over)
II Intelligence test (75 per cent)
III Salary
  A. Starting ($8.00 and $9.00)
  B. End of sixty days (minimum $9.00)
IV Promotion
  A. Record clerk
  B. Pricers
  C. Mail readers
  D. Supervisors

We also maintain a standard output and error record card on each employe.

Form No.

INDIVIDUAL WEEKLY RECORD OF.....

Date Employed.....

Week Ending	Activity	Division	Hours Worked	Output	Output per Hour	Total Errors	Days Absent	Days Late	Salary per Week	Unit Cost

CHART E (Card 4 x 6″)

This record is maintained by superintendents in cases where no bonus is in effect. On work where we are able to apply bonus, we keep a little different record, as shown in Chart F.

FORM NO. 1110 INDIVIDUAL WEEKLY RECORD OF----------

WEEK ENDING	ACTIVITY	DIVISION	HOURS WORKED	RATE PER HOUR	UNITS PRODUCED	UNITS TASK	EXCESS (BLACK) LOSS (RED)	BONUS (BLACK) LOSS (RED)	TOTAL ERRORS	SPECIAL BONUS

CHART F

The purpose of these records is not only to let us know more about what we are doing, but to enable us to place employes on work where they will not only be the greatest use to themselves but to the business in general.

To illustrate this point, I will cite a case that is typical of a number. Wm. K. was an order filler. The work in his department had been standardized by the department of efficiency. He had not drawn any particular attention his way in the past until the bonus was applied. Under careful instruction his record began to show very well. He earned a high bonus, about 50 per cent of his salary. He was taking an interest in the business. His record looked so good that we wanted to know more about Wm. K. It developed that this young man had real ability along advertising lines, and as a consequence, the educational department secured the much desired opportunity for him in the advertising department. He is there today and making good. It is safe to say that his ambition and ability would have led him from us had we not discovered it and placed him where he belonged. It was good for him and it was good for the business. This is just an example, we might say, of what is possible, but on a larger scale, when concrete and definite steps are taken to know one's employes. Such records make it possible to know the efficient as well as the inefficient.

Supplementing all of the foregoing analyses still another index or audit is maintained by the superintendent of employment. Twice a month he visits each superintendent in the house and talks "employes" to him. He secures a rating on each employe by the superintendent in charge under three classes—A, B and C.

An employe in the "C" class must reach the "B" grade in a reasonable length of time or we conclude that he is unsuited for his work and should not remain in it. This seems to clinch the other studies that are made in such a way that it is next to impossible for an employe to be missed or overlooked. Every executive studying his employes and recording his data in such form helps immensely in studying labor turnover problems.

MEDICAL AID FOR EMPLOYES

A few years ago there was passed, in the state of Illinois, a law called "The Workmen's Compensation Act." The text of the act covers many pages, but the definite idea and purpose of the bill is

the protection of the working people. Injuries received while in performance of the duties are compensated by specified sums. In case of death or injury, a sum based upon the annual earnings of the deceased must be paid to his beneficiaries by his employers. A similar law is in effect in many other states.

While the Workmen's Compensation Act serves an excellent purpose, its protection covers only persons injured while at work. As we use comparatively little high speed machinery in our plant, accidents to employes are few and rarely of a serious nature. On the other hand, the ordinary ills of humanity are always present and among our thousands of employes, a varying number are always in need of medical or surgical aid and the Workmen's Compensation Act does not cover cases of this kind. The prospect of the doctor's bill is always viewed with dismay by the working man or woman and the savings account shrinks sadly when the bill has to be paid. Realizing that the establishment of a first-class free medical department, relieving employes of the burden of expense consequent upon illness, would result in an increase of happiness, health and efficiency among our people, the move was made by this company on a broad and liberal basis:

The medical division in our Chicago plant, which is the largest of our stores, consists of a chief of staff, who is the head of this department, as any other manager is the head of his, three other physicians—two within the office and one for outside calls. There are, in all, four nurses—one who gives all her time to the doctor's office to assist in the care of the women, one nurse and her assistant who look after the work in the emergency rest room, one visiting nurse whose entire time is utilized in making follow-up calls for the visiting physician and in keeping an eye on the home conditions of the men and women.

With this force of physicians and nurses it has been possible to accomplish some rather remarkable results, the most notable being, no doubt, the feeling of health security that the employes enjoy. The main desire has been to stamp out tuberculosis, but tuberculosis has many ramifications—it involves a consideration of heredity, of bad housing and insufficient food, of questionable personal hygiene and surroundings. To consider the acquired disease only would be to take a very superficial view of it, indeed. It was to obviate its

incipiency that we adopted the plan of giving our men and women malted milk.

SERVING FOOD BETWEEN REGULAR MEALS

It has been observed by students of economics that a worker will apply himself with an upward curve of efficiency until about ten o'clock in the morning. From then on the curve begins to dip until luncheon time. His food and rest refresh him, and he works very well until about three in the afternoon. Again his work begins to lag, and reaches a low mark at about half an hour before closing time. It occurred to us that if we could anticipate these periods of exhaustion and prevent them, the saving in health and energy would in time be considerable.

We instituted the plan of serving free to every employe who our physicians thought would be benefited, at ten in the morning and at three in the afternoon, a twelve-ounce glass of malted milk, double strength. During 1916, 80,189 glasses of milk were served in our Chicago store. While the apparent expense of this is large, even from a business point of view, it is a good investment. The increase in energy and good-will more than offsets the cost of the malted milk. Naturally in so large a store many will come to us with hasty or insufficient breakfasts. They cannot do the most efficient work with empty stomachs. Out of a room where several hundred girls work, there were chosen at random twenty girls. In a period of six weeks the least gain in weight by any individual was ten pounds and by the most, twenty pounds. The most happy result, however, has been that we have been able to cut out iron tonics and cod-liver oil, with which we were accustomed to keep our girls built up. What they needed was food and heat units, and not the stimulation of drugs.

If mere numbers are interesting, it may be surprising to know how many people meet the doctors and nurses in a year's time. There were treated in the doctor's office of our Chicago store alone in 1916, 49,537 employes. Of this number, to be sure, many were subsequent visits of the same patient. There were 209 accidents of sufficient seriousness to cause the employe to seek the assistance of the doctors. That is a very small number, in a year's time, among so many thousands. There were ninety-five operations performed in the hospital, and 188 were cared for in the hospital for illnesses non-surgical. Our visiting nurse made 2,297 calls. While these

figures are large, we should not wish them to be interpreted as meaning anything half so important as the fact that so many have thus grown to appreciate our usefulness to them.

All employes may take part in the benefits of the medical service, but those who have served one year in the employment of the company become entitled to special medical benefits. The distinction between those who have served one year and those who have served less than one year is that the former receive attention either at the store or at their homes for illness or injury in all cases, under direction of the medical director or his assistants; while the latter receive attention in cases of illness only at the doctor's office in the store. In cases of injury the Workmen's Compensation Act requires a limited amount of service to the injured person, but the effective organization of the medical department enables the company to provide every necessary attention under the direction of the medical director for complete recovery.

INSURANCE FOR EMPLOYES

July 1, 1912, the company inaugurated an insurance plan whereby married employes, of five years or more service, upon decease, would leave the following benefits:

Funeral and burial expense, $100;

Pension to widow, 25 per cent of last wages;

Pension for one child 20 per cent additional, or for two or more children, 25 per cent additional. Therefore, for a widow and two children a pension of 50 per cent of the wage of the deceased employe would be left by him as a benefit that would continue in the case of the children as long as there were two under sixteen years of age. When only one child under sixteen years of age was left the pension for it would reduce to 20 per cent and at sixteen years of age this pension would cease. The pension for the widow would continue as long as she remained unmarried. All the above pensions are payable weekly.

For unmarried employes the insurance plan provides for benefits of

Funeral and burial expense, $100;

One year's wages to beneficiary named by deceased employe.

The company pays the entire cost of insurance premiums, and

the only condition required is five years' service in the employment of the company.

The Employes' Mutual Benefit Society is an independent organization open to employes after one year's service. Employes pay dues of twenty-five cents, thirty-five cents or sixty cents per month, depending on classification. In case of disability from illness or accident, the society pays the sums of $5, $7 or $10 per week, according to the class of membership.

The Employes Savings and Loan Association is a mutual organization to encourage thrift, create a savings fund, entitle members to borrow money therefrom, and distribute the earnings and profits among the members. At the present time the employes are depositing $3,000 a week.

DENTAL CARE AND EDUCATION

Before installing a dental office to serve our employes we opened up correspondence with various corporations which were already operating a similar plan and received the benefit of their experiences. In one important respect we disregarded the advice of practically every concern with which we had correspondence. Invariably they advised us to confine our dental work to caring for emergency cases, making examinations, giving advice as to the care of the teeth and referring employes to outside dentists to have the work done. We felt that the price asked by the average dentist tended to prevent many people having their teeth properly cared for and we could not see how a dental office doing only emergency work and examinations would remedy this drawback.

Our employes have come to know, and repose great confidence in our medical department. In fact, its attitude toward them is distinctly paternal, services being rendered in a very kindly spirit. We felt that a fully equipped dentist's office doing good work at low prices would benefit by the confidence which our employes repose in our doctors and nurses. We, therefore, decided to equip such an office and announced that examination and emergency work would be free and that the charge of all filling, crowns, etc., would be simply the cost of the dentists' time without loss of wage by the employe.

Through contact with the employes the doctor's office had a record of a large number of persons whose teeth required care and advised the people on this list to visit the dentists' office. As a

result we immediately had several hundred applications for examinations.

Our plan of procedure is that after making the examination, the dentist gives the employe an estimate of the cost and asks him whether he prefers to have work done in our store or by his own dentist. Our comparatively low prices nearly always result in our doing the work.

We are employing at present in our Chicago store about 5,500 people and are now running three dentists' chairs all day. We have work enough engaged to keep the dentists busy for three or four months and find it is all they can do to take care of the examinations and free emergency cases between regular engagements.

We feel that the expense of rent, light, heat and employes' time lost is more than offset by the improvement of health, happiness and consequent efficiency of our people.

A desire on the part of the educational department to help employes get ahead led to the formation of evening classes in English and in the use of the dictating machine, comptometer, stenography, etc. On a class evening, a few minutes after the closing bell rings, young women throng into the recreation room, where a supper furnished at a nominal sum is waiting for them. After this comes twenty minutes of dancing, then classes in the subjects mentioned above and those in sewing, dancing, English, etc., meet until eight o'clock.

Classes for boys are held twice a week. Instruction is given in English and principles of the mail order business. We have enrolled in the classes a group of interested and ambitious young men from various departments of the store.

Our regular work day is eight and one-half hours, except Saturday. We close at noon on Saturday during May, June, July, August and September, and at 3:00 p. m. from October 1 to May 1, except during the rush period. Women employes are given ten-minute rest periods forenoon and afternoon. Comfortable chairs with backs are provided for all persons who work seated, with foot rests for those using high chairs. In wet and stormy weather dry stockings and skirts are loaned to women employes who reach the store with wet feet while their own apparel is being dried. Umbrellas are loaned to employes when it is raining at the closing hour. In order that women employes may procure seats in the street cars

they are permitted to leave the store ten minutes before the closing hour for men. Sanitary bubbling drinking fountains are located at convenient spots throughout the store. Sanitary toilets and wash rooms and individual towels are provided for men and women, also storage for employes' bicycles, motorcycles and automobiles. Ample fresh air and light are features of the store. All employes who have been in the company's service previous to October 1 of each year receive a vacation with full pay the following summer. Promotions are nearly all from the ranks.

GENERAL WELFARE WORK

In its relief work the welfare division is an instrument of coöperation between the managers of the divisions, the head of the educational division, the welfare visitor and the medical staff. In order that this coöperation may be effectual, there exists a committee composed of two representatives from each section of the plant, a man and woman whose function it is to become acquainted with their fellow workers so that they may assist the manager in dealing with problems of relief and advice. The manager reports to the head of the educational division cases which he wishes to have investigated, and those upon which he desires advice or assistance in any special way. If the case is one which has to do merely with an inside situation, the head of the division may attend to it alone. If home problems enter in, the welfare visitor goes to the home and reports conditions. Upon her discoveries is based, to a large extent, the nature of relief. For instance, she may find seriously ill a young woman who has not worked for the house long enough to be entitled to membership in the Employes' Mutual Benefit Society. Since she is the sole support of her widowed mother, their income has ceased. In this case the visitor may suggest that a month's rent be paid, a supply of groceries and fuel given, and medical supplies sent from the doctor's office. This department has worked along with the medical staff in cases of lingering illness, supplying weekly orders of staple groceries, rent and fuel, for periods ranging from several months to two or three years.

Other forms of relief are disability allowances, transportation and small loans for a few days. Loans of larger amounts are made by employes in crises which necessitate larger single expenditures at a given time than they are able to meet. This money is loaned

without interest and taken out of their wages in weekly installments. This is done to discourage them from patronizing installment houses and loan sharks.

Besides giving financial aid this division is frequently asked to help those who need to be put in touch with other social agencies and institutions. Service in such instances often mean going with the one in trouble to the Court of Domestic Relations, the Legal Aid Society, and other such places. The presence of someone in a position of influence gives confidence to the one in trouble and insures a more intelligent interview and full consideration of the case.

In connection with the educational division is a branch of the Chicago Public Library. The city furnishes books free. The company furnishes the room and a competent librarian who selects carefully the list of books for the shelves. A supply of approved technical books on business subjects, advertising, office management, scientific business management, etc., is always available and employes are encouraged to avail themselves of these opportunities for acquiring valuable knowledge.

A restaurant is maintained which furnishes palatable, properly cooked food at cost to our employes and patrons. Our Chicago restaurant will feed as many as 2,500 persons in a day. Tables and chairs are provided for employes who prefer to bring their lunch with them.

The monthly noon musical in the recreation room is a cultural feature of the social life. From 11:30 to 1:30 a program of instrumental and vocal music, and such special attractions as whistling, quartettes, orchestra and chorus work is given by the employes. It is on these occasions that one becomes acquainted with his fellow workmen. In this group one finds leaders of choirs, members of bands, and of orchestras, amateur performers of ability and even a composer of popular songs.

While the recreation room is for the exclusive use of the women for dancing during the noon period, it is used for dances for men and women at other times. Any division properly chaperoned can give a dance here and this privilege is frequently taken advantage of on Saturday nights. One large division dances for an hour every Friday evening after work. Though three hundred can be accommodated here it is too small for the big general affairs which are given several times each year. For these larger quarters are provided.

The Employes' Mutual Benefit Society gives a picnic each summer. This is a gala event of the season. The store is practically closed all day, all who wish to attend the picnic being excused with full pay for the day. The 1916 picnic at Riverview Park was attended by 8,000 people. The program of games covered a period of about five hours and prizes worth $250 were given.

Among the social features for employes are girls' clubs, bowling leagues, a billiard league, and an orchestra, athletic fields with baseball diamonds and tennis courts.

Restaurant and dentists' service are furnished at cost. The Employes' Mutual Benefit Society is maintained by the employes themselves. Life insurance, medical services, nurses, hospital fees, ambulances, medicines, malted milk, welfare and educational work are the free gifts of the company. There is no expense whatsoever to employes. It is a matter of reciprocation. The employes are encouraged to give the best services to the firm, the firm in appreciation offers to aid in the conservation of their health, their mental improvement and in the protection of their families in case of death.

The result of all these things is that throughout the entire business there exists a spirit of loyalty and solidarity that could be effected in no other way. We believe it pays to know our employes.

PLANNING PROMOTION FOR EMPLOYES AND ITS EFFECT IN REDUCING LABOR TURNOVER

By Philip J. Reilly,
Employment Manager, Dennison Manufacturing Company.

The labor turnover figures of many industries are sometimes increased because no studied effort has been made to plan the promotions of worthy employes. In many industries it is possible to promote employes systematically. When this can be done, it is well worth while to establish a policy of regular promotions, and to adhere to it as far as practicable when filling any positions of preferment.

In our manufacturing organization, the majority of the occupations furnish in themselves sufficient scope for promotion, since they enable an unskilled worker to become skilled and to earn a wage that will be equal to or even better than the wage earned by the average worker in the trades. Any plan for regularly advancing employes must provide for a rerating of employes at certain intervals even in these occupations, so that deserving employes will be granted unasked-for pay increases. To effect this result, we have established the policy of going over the records of all our employes once a month, for the purpose of rerating them. This is done by the department heads. In addition to this, the employment department checks up the pay rates in such occupations at regular intervals so as to bring up for promotion the names of any employes who may have been overlooked.

Some of our occupations, however, do not in themselves offer to the ambitious employe much opportunity of advancement. These jobs are merely used as feeders to positions with chances for advancement. When such positions are so used, we find that a higher type of employe can be attracted since many industrious applicants will, for the time being, accept positions whose requirements are somewhat beneath their capabilities, provided that a way of escape is open from these positions into the more desirable ones.

The job analysis form which we have on file for each position in our industry indicates the lines of probable promotion from the feeder positions. The information given by this form enables the

selector to inform an employe engaged for "jogging" in our label department that he will get the first chance on guillotine cutters, when a vacancy occurs. Employes engaged for chopping in our board department will get the first chance on paper cutting when a vacancy occurs. Truckers in our shipping department always get the first chance to do packing; and in the same department, bundlers and order-fillers get the first opportunities to do checking. The latter named positions are the better paid and usually the most satisfactory to the average employe.

Thus we have developed in our business outlets to better positions from practically all the feeder jobs. This practice results not only in obtaining a better grade of employe for the feeder positions, but also in making better workmen of the employes when they reach the higher positions by virtue of their experience in a connected line of work.

This plan also takes care of the large proportion of our transfers; but an employe is free at any time to come to the employment department with a request to be transferred. In 1916, 60 per cent of our transfers were made by the employment department for the employe's advancement, while only 5 per cent were made at the request of the employe. If this group of employes had left dissatisfied, our labor turnover would have been increased 10 per cent.

We have found that there are certain types of positions which are more attractive than others to our employes. In filling these, older workers are given preference, other things being equal. Clerical positions are always sought for. Any positions which are much sought for usually have a small labor turnover. This is true of clerical positions. Therefore, we have found it possible to place in clerical positions only a fraction of our applicants. This is especially true in June when high schools and business colleges are graduating additional applicants for these positions.

We have found many applicants who, unable to obtain clerical positions immediately, are willing to take factory jobs, provided they are assured that they will be given consideration for clerical positions when vacancies occur. Under these circumstances, applicants are placed in various factory positions, which do not require a long period of training, and from which they can be promoted to good advantage into clerical positions. A record of the applicant's preference for clerical work is kept in the employment

department, and when vacancies occur, this record is consulted and applicants selected from the factory for office work.

Of course for certain positions, requiring training along special lines, we must employ outside applicants from our waiting list. In the large majority of cases, however, the clerical positions are filled by employes who are on our factory pay roll. We have found that in the more difficult clerical positions, the employes who have had factory training are more satisfactory than the clerks who are hired direct from the outside, who have had no training in our business. Aside from this advantage, we find that the free flow of workers from factory to office rather makes for a democratic feeling, since there is less class distinction between the office and factory group when the office group is largely composed of former factory employes.

Desirable positions are open from time to time toward which none of the regular factory positions naturally lead. These usually consist of special jobs, requiring unusual qualities or exceptional ability. One means of discovering employes who would be in line for such positions is to develop a list of exceptional employes. Our record for this purpose represents employes who are above the average in their present jobs, and who could probably fill positions of more responsibility. Two or three names are selected from this list, and a decision made as to who should be placed in the position in question.

In our industry, this list is developed and used by the personnel committee, which is a subcommittee of the executive committee of the factory. Names are added to this list from the reports this commiteee receives from time to time from foremen and department heads.

The listing of names of worthy employes, when solely the act of the management, may occasionally overlook some employes who deserve recognition. To prevent this, we invite employes who feel that they deserve promotion to seek an interview with the personnel committee. Thus an employe by writing a request and dropping it into the suggestion box, may obtain an interview. The suggestion department delivers all such communications to the employment department, which obtains the data covering the employe and presents them to the personnel committee for study at the time it is ready to meet the employe.

The policy of having regular promotions for employes is not always easy to follow; but when generally adhered to, it yields very happy results. It may appear to mean additional work for the employment department because at least two, and sometimes several, employes are affected every time a vacancy at the top occurs, but this long-sighted policy will usually compensate for itself in the final result that it brings.

This results in developing an organization of employes who are versatile, because most of them have had experience at more than one job. Such an organization will function more smoothly and engenders loyalty and *esprit de corps* because of the satisfaction felt by employes who have had the chances their abilities deserve. Finally, it reduces measurably the labor turnover because there will be few if any exits from the pay roll due to employes having had no chance to get ahead.

In adopting a policy of systematic promotions, a fundamental principle is to plan in advance the channels of promotion within departments and from one department to another, and outline these channels on the job analysis form.

The next principle is to keep a practical record that will reveal promising employes, and to record separately special training or aptitudes which certain employes have, and which can be used in higher positions when vacancies occur.

The third principle, which is of extreme importance, is to choose from your present force first for all positions vacated, except the feeder positions. The fourth principle is to invite employes to request promotion when they are dissatisfied with their present positions.

Whether promotion is deserved or not, discussing the matter with any employe in an organization results in a better understanding; and if the promotion is not deserved at the time the request is made, the employe can be encouraged to win it by making every effort in his present work, or by devoting his spare time to the study of the particular subject that will fit him later for the promotion he desires.

THE REDUCTION OF ABSENCES AND LATENESS IN INDUSTRY

By John S. Keir,

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It is, perhaps, heresy to quarrel with an old adage. In line, however, with a current bit of philosophy that it is as expedient to be hanged for a sheep as for a lamb, this paper will take issue not with one old adage, but with two. There is a proverb that to be absent makes one conspicuous. Another holds that the absent are always guilty. We wish to take the ground, that neither of these is of necessity true. As it is an economic axiom that no progress can be made until there is a definition of terms, it is necessary, before going further, to understand that "the absent" under discussion are the industrial absent. And by "the industrial absent" are meant—Jones, the machinist, who does not come to work on Monday morning and Smith who loses half a day on Wednesday. By absence we do *not* mean labor turnover or unemployment. Absence is unquestionably a factor in labor turnover, but for our purpose the terms are by no means synonyms. Turnover is the broader term.

It is said that a man's, or firm's, pocketbook is a vital organ. It would seem then that anything connected with the apportionment or outlay of the purse's contents would be known to its owner. But there are practically no figures obtainable on the exact cost of industrial absences. Moreover, as one firm admits, most estimates in this connection are not estimates at all; they are simply wild guesses. Closer estimates, however, may be made in an indirect way. For instance the L. Bamberger Company of Newark estimates that they have to employ 5 per cent more people than is absolutely necessary because of the factor of absence. The Dennison Manufacturing Company figures the average wage loss to be forty-two cents a week to each female factory worker, and forty-nine cents a week to each male factory worker, these figures based on the average weekly wage being paid at the time the study was made. The total wage loss is $50,000 a year. A concern in Detroit is spending $50,000 a month

to prevent absences; and the firm considers the money is well spent. At one time, the Beacon Falls Rubber Shoe Company found that they could rely on only 60 per cent of their workers showing up for any one shift. The Curtis Publishing Company reports an average of forty-two cases of absence in every 1,000 employe session during the month of January, 1917. The Crompton-Knowles Loom Works finds an average absenteeism amounting to 8½ per cent. If these figures be multiplied by the 270,000 industrial concerns that there are in the United States the cost and the amount of absence looms tremendous.

That this amount of industrial absence is not conspicuous and is not, particularly, under the suspicious eye of the purse holder, is a curious fact. Only about one out of twelve concerns makes any effort to check up or remedy this condition.

In discussing the second heresy, namely, that the absent are not of necessity guilty, it is essential that investigation shall go into considerably greater detail than was the case with the first. In the first place what causes lie back of absences? In the second place, what various methods have been employed to overcome or combat absences?

In taking account of the reasons back of absences, it must be understood that those mentioned in no way constitute the complete list. It is a question whether or not a complete list could be obtained no matter how exhaustive an investigation might be made. Only those causes most evident and generally recognized will be discussed.

A prolific source of absence is latenesses. This may seem a paradox, yet the connection is a fairly obvious one. Here again exact figures cannot be quoted, but a few general examples will suffice to bring out the point. A great number of manufacturing plants adopt a policy of locking their gates at a certain time in the morning or afternoon, and keeping them locked until that particular work-period is over. The Cleveland Metal Products Company, for instance, after 7:15 in the morning is closed to the employe until noon. The Fore River Ship Building Company closes its plant to the straggler after 7:45 a.m. and 12:45 p.m. The General Electric Company at Lynn follows this same idea, as do many of the large textile mills at Lowell.

The first cause of lateness is poor transportation. This is

particularly true for those people who live outside the city and come in for their work. For example, one employe of the Lanston Monotype Company in Philadelphia owns a farm in New Jersey. The transportation facilities are such that he has to get to the factory either a whole hour before the plant is scheduled to start, or come in fifteen or twenty minutes after it has started. He generally chooses the latter. The foreman or executive, of course, has the right to tell him he must get there on time or not come at all and to do it without looking up the actual conditions and attempting some adjustment fair to both the man and the firm. This particular man has been with the company fifteen years, and to give up his farm in New Jersey would be a severe financial blow to him. Such problems are very frequent, under the present haphazard system the individuality of the person in question too often is the deciding factor in meeting issues of this sort. Transportation tie-ups within the city or town are too common to need any further discussion.

Another obvious factor is the weather. Any school teacher is familiar with the increased tardiness on dark winter mornings. In a class of sophomores at one of our large universities, on a dark morning in February, eleven out of thirty were five minutes late. The Curtis Publishing Company finds the same is true of its working force.

The "habit of lateness" is another big factor. In our childhood days we all probably heard of the ten o'clock scholar, and we find him in business as well as in school. One executive has said that nearly 90 per cent of all lateness is simply "habit." Possibly that figure is exaggerated. But the habit is all too prevalent at best.

The actual location of the time clock should be considered in its relation to lateness. "When is an employe late?" Must he be at his post, or simply in the factory is a question which an employer should have in mind before he locates his time clock. Sometimes the clock is placed in the department, sometimes at the main entrance. For example, at John Wanamaker's Philadelphia store a girl rings up at the time clock which is nearest to her department, but she is supposed to be at her place when the store opens.

A great many of the causes of lateness are identical with the causes of absence and may be considered under that heading. A most important excuse for absence is sickness. Thus the L. Bam-

berger Company find that out of a total daily absence of .052 per cent, .033 per cent is due to sickness. The Edison Electrical Company of Boston places it at 2.5 per cent of all their absences, while the Hood Rubber Company places it as high as 60 per cent. Of course, "sickness" is a term which covers a multitude of sins. Some of it is not very serious, and some of it is entirely assumed. One firm has called it a "lack of gameness," a giving in to the slightest indispositions. It forms the handiest excuse, if an excuse is needed. Of actual handicapping sickness, however, there is enough to warrant consideration. The two most prevalent diseases are alcoholism and stomach trouble. In alcoholism, the location of the saloon has a direct bearing on this particular problem. There is a town in southern Connecticut which has fourteen saloons within three blocks of its busiest manufacturing plants, and within easy reach of a great many homes of the men who work in the plants. A mining town in Pennsylvania has saloons as near the shafts of the mine as the company will permit. "Stomach trouble" covers a multitude of ills, aches and pains.

With sickness is the whole gamut of industrial accidents. These, too, form a common cause of absence. The United States Steel Corporation found that over a period of six years with three hundred days counted to the average year, and in a plant employing 6,600 men, the amount of days lost per worker was 6.2 per cent in the steel works where the accident rate is high, and 2.4 per cent per man in the yards where the accident rate is relatively low.

The time of year affects absences. It has been found that school attendance is best during autumn and spring; that in the New York schools the largest number of absences occur in January; and the next largest number occur in June. Unfortunately no figures have been collected to show the results of this influence on industrial concerns.

The day of the week unquestionably has a place. "Blue Monday" has a very real ring from the manufacturer's viewpoint. The Dennison Manufacturing Company finds its largest percentage of absences on Monday. The Fore River Ship Building Company, over a period of two months, finds a consistent average of 10 per cent of absenteeism on this day, with, oddly enough, Thursday morning as a close second with 7 per cent. The Cleveland Metal Products Company has epitomized its situation as the "Monday

habit." The causes of Monday's prominence are legion. A great majority of executives seem to feel that much of the Monday absence is entirely voluntary and could be avoided. The common practice of paying on Saturday might be a factor in this question, for with his pay in his pocket and a day and a half off, there is nothing to keep Jack a dull boy—until Monday morning. Almost any pay-day will breed a certain amount of absence. Some firms have discontinued the Saturday pay-day.

The time of day also enters in. The Hood Rubber Company reports a 10 per cent absenteeism from the night shift as against 8 per cent from the day shifts.

The days after holidays come in for their quota of blame. The Fore River Ship Building Company quotes an increase of 3 per cent after a holiday. In a large university, out of a class of thirty-eight, only seven reported at the first meeting of the class on the day college reopened. Dr. Ellsworth Huntington, in a study of a Cuban cigar factory, says that the Cubans have a great aversion to working on Monday, the day after their very real and strenuous Sunday holiday. Only a small portion of the force appears; those that do come arrive late, and get only 80 per cent as much done as on other days.

Let us consider next some of those things which have more to do with the workers personally. The sex of the worker makes a difference. Nearly every concern which employs both men and women, such as, for example, the Esterbrook Pen Company, and the Campbell Soup Company, finds that, not only is there a higher turnover among the women than among the men, but also that the percentage of absence is greater in the case of the women. The A. M. Collins Manufacturing Company carries out a premium scheme *only* in the case of its women employes, because it was among them that the greatest amount of lateness and absence existed. The Dennison Manufacturing Company has been the best source of information on this point. They have found in the factory departments an absentee record of 5.2 per cent among the women, 3.5 per cent among the men; in the factory clerical departments the percentages were just alike; but in the clerical sales division, again, the women showed 2.6 per cent as opposed to 1.1 per cent for the men. In the office force there was thus no difference, while in the factory department the difference was striking. In

general, tardiness among women employes probably rests upon two main elements, physical limitations and home responsibilities. Many girls try to carry on a home job and a shop job at the same time, and it is perhaps a safe assumption that both jobs suffer.

The type of wage payment is another factor. Does the piece worker, because he can hurry and make up lost time, and because his time is in a sense his own, take a day off with an easier conscience and under less provocation than the day worker? Certainly it is open to argument.

Together with this question of wages, we must also consider raises in salary. Some men have said increasing pay means decreasing attendance, and others have taken the opposite view. The Fisk Rubber Company says that some of its men, who make eight dollars a day, argue that they can make enough in five days. The Cleveland Metal Products Company assumes that present high wages lead to a greater use of intoxicants and consequently to more frequent "lay-offs." On the other hand, these last few years have witnessed all kinds of bonus systems, profit-sharing schemes and blanket raisers. It is by far too big a problem to warrant any positive statements.

A rather nebulous factor in absence is an indefinite thing which we might label as the discontent of the worker. This discontent may arise from conditions outside the factory, such as lack of recreation in the locality, or from conditions within the factory, such as dislike of his particular job or friction with his foreman or with the men of his shift. It is almost impossible to measure or to trace the definite influence of an element of discontent, but it must be mentioned in passing, for it unquestionably has a definite effect.

The industrial situation and the condition of the labor market play a very important rôle in latenesses and absences. The Crompton-Knowles Company accounts for nearly all its absences on the ground of abundant work. In addition to the ease of obtaining a new job, the present high wages make the financial loss of an idle day or two a matter of no account. The Cleveland Metal Products Company finds that there has been a decided increase in the number of absences during the past year, and they attribute them to this cause. Tardiness has also increased in this firm, running a little less than 1 per cent of their entire force. The Joseph and Feiss Company show an increase in absence of 2.5 per cent per day in 1916

against 1.5 per cent per day in 1915, a change which they attribute to the present condition of the labor market. In a large shoe company in Philadelphia conspicuous signs are posted calling attention to the rules regarding absences and lateness, but one of the executives admits that in the past two years they have made no effort to enforce them.

As a last cause for absence we place the weather. It is perhaps because this reason is so obvious, that no one has ever taken the trouble to analyze it carefully. Probably the best work that has been done in this connection is a study of school children in New York City and in Denver, Colorado, made by E. J. Dexter. There is a great difference between the ten-year old school boy and the thirty-year old machinist, and yet these results might have some comparative value. It was found that on cloudy days attendance was not so good as on bright days. Fifteen per cent of all absences occurred at a time when the temperature was lowest, and the next largest group occurred when the thermometer registered above ninety degrees. The number of absences increased when the humidity was high, a thing not so hard to account for, high humidity almost invariably causing rain. Oddly enough the attendance of the boys seemed to be more directly affected by the weather than that of the girls.

There are other causes of absence for which firms are themselves directly responsible. Such things as a fluctuating work schedule and shutting down for inventory quite naturally make for an increased absentee record. The workman pays for this in time lost. But absences of this nature breed labor turnover, and for labor turnover the companies pay. Possibly the accounts balance.

So far we have been dealing with causes. Remedies must follow and of these there are two kinds: alleviation and prevention. Either or both must be sought and tested to fit individual and localized needs.

We have said that one of the causes of absence is lateness. If therefore we do away with lateness, *ipso facto* we may cut down absence. The "habit of lateness" is different. A student in a large lecture course in one of our universities came to class five minutes late eleven times in succession. Nearly all latenesses occur within the first half hour; 95 per cent is the estimate of the Midvale Steel Company, and the bulk of this 95 per cent is within the first ten

minutes. To combat this condition, this company levies a small fine on latenesses that occur within the opening half hour. The University student may be given half cuts. For an office force, it is said that a time clock is a great incentive to develop the habit of being on time—although a time clock is irritating to nearly all office men. Often a timely warning will serve to check the habit. An executive of a scientifically managed concern, found that one of his stenographers had the habit of being a little late. One day she failed to appear at all and he advertised for another stenographer. It so happened that she had a legitimate excuse for this particular absence; but when her lateness record was shown her she had no excuse to offer. She asked, however, for another chance, and during a period of three months since that time she has not been late once. The habit, however, is not always so readily and willingly broken.

The question of docking for lateness is much the same as the question of general docking for absence. There are, however, one or two systems which apply more particularly to lateness alone. Thus for example in the Cleveland Metal Products Company, for any fraction of time under fifteen minutes, a man is recorded as, and docked for, the full fifteen minutes. The Leeds and Northrop Company have a five and ten minute plan. If a man is late five minutes he is docked half an hour, ten minutes a full hour, etc. Schemes of this sort meet with varying success. A device which brings very real results is one which makes lateness difficult. If a man arrives late at the gate of the Fore River Ship Building Company and feels that he has an excuse, his case has first to be referred to the chief time keeper who in turn refers it to the foreman. If the foreman is willing, the man is admitted. It is found that the majority of men will make a special effort to be on time, rather than have to go through such a process. At Strawbridge and Clothier's store in Philadelphia those who are late must go to a central desk and sign a slip, with the result that latenesses are only about 2.5 per cent as against a former record of from 5 to 10 per cent. The J. B. Stetson Company requires a pass to be obtained before the tardy operative is allowed to enter his department. These passes are then filed and kept for future reference. At the plant of the Plimpton Press the "lates" report to the employment department. Then they fill out a "late" ticket giving the operative's name, his

number and the reason for his tardiness. Combined with this, is a sort of docking system also. If the employe is excused he is paid from the time he reports to his work place; if he is unexcused for any time before 8:30, he is given an 8:30 ticket and loses all time previous to that hour. The average per cent of lateness per working day in this plant is now only 2.47 per cent.

A variety of other devices of a similar nature are employed all with the same end in view, namely, to put a premium on coming in on time, by making it financially or conspicuously troublesome to come in late.

Docking is a device with which we are all familiar. To the piece worker docking is, perhaps, not serious for it is possible for him to make up the money loss by extra effort. The day worker does not have this opportunity. The Midvale Steel Company has a very definite system of fines for all sorts of minor offences. At the Curtis Publishing Company's plant any unexcused lateness is fined at the rate of time and half time salary rate. The German American Button Company levies a small fine for lateness, the proceeds from which are placed in an employes' trust fund for the financial support of general employes' activities. There seems to be a growing feeling against fining systems. Any such system becomes dangerous unless the employes know where the money from such fines goes. Moreover, a fining system is not usually adequate, for many employes will pay the fine feeling that in so doing, all responsibility on their part ceases.

The careful records of lateness and absence which are kept in any up-to-date employment department serve as an indirect fining system, since a man's record is a factor in determining whether he shall receive a raise for which he has applied. Thus, in combating lateness and absence, the A. M. Collins Manufacturing Company feels it is fundamental that the employes shall realize that those in charge know how often they are late and how often they stay out all day. To this end the firm prepared a card which shows the total possible number of hours for any one person to work, making allowance for holidays, shut-downs and things of a similar nature. The employes' record is kept on this card and it shows at a glance the comparison between the actual hours which he has worked and those which he might have worked. These cards are kept with other in-

formation and often form the basis for salary raises or for promotion, or supply the grounds on which either may be refused.

It has been said that one of the main weaknesses of our municipal governments is that no one is responsible. Centering responsibility for civil evils tends to remove those evils. This is perhaps true likewise of industry in general and of our problem in particular. The one exception to this has been the case where the responsibility has been centered on the foreman alone. That is not an altogether fair statement either, for the problem of absences is only one of the many that a foreman has to solve. We have seen how keeping records is one way of centering responsibility and it is possible to have a concentration of responsibility for lateness and absence. In this connection the Crompton-Knowles Company believes that continued pressure from high authority is the best way of keeping absences down to a minimum. The absences are reviewed by the general superintendent, and by the works superintendent who in turn take them up with the department foreman. In this way the number of absentees has been reduced 30 per cent within the last six months. The Dennison Manufacturing Company on the other hand has given up the idea of concentrating the responsibility on the foreman alone. One of the most efficient methods is the posting of comparative bulletins. The Crompton-Knowles Company compiles a monthly report of its absentees, and it is the desire of the foremen to make a good report that stimulates them to give this problem its due attention.

In 1913, the Curtis Publishing Company began posting bulletins showing latenesses by division, and the standing of each division in reference to the others. Just recently absences have been added to this bulletin. From 1913 to 1915 latenesses were cut down from thirteen per one thousand to nine. Borrowing this idea of stimulating rivalry between the departments, Strawbridge and Clothier worked out a similar scheme. At first the bulletins were not issued but were simply sent to the department heads, and this system alone cut latenesses in half. The Lanston Monotype Company also posts a comparative bulletin, with the result that their absence record, while never very high, now runs less than 2 per cent.

In the Bridgeport plant of the International Silver Company, rivalry is stimulated among the various departments, by posting the record of their service reward by departments. Within each de-

partment itself a bulletin is posted showing the percentage of people earning service rewards in that department. To the department which makes the best record in a given week, a banner is awarded. This seems to have brought results. The man who loses his service reward is laughed at by his comrades, and continued absenteeism threatens his popularity. The success of any such plan will depend very largely on the way the banner is presented.

This centering of responsibility has so far been very largely in the department. In order to improve its operation, Strawbridge and Clothier adopted a plan of posting the names of those who were late more than twice in the same week, with the result that the ratio was still further cut. The Dennison Manufacturing Company sent out a series of absence slips to each department. On these slips are entered all absences, whether excused or unexcused. The slips are so arranged that no broken time can appear on an employe's clock card without an absence slip explaining this loss. The object was to make sure that all lost time was reported. With this record, tabulated each month, individual cases are taken up with the employment department. If a loss is due to an operative's home duties she is asked to correct it, or else to give up her position. This centering of responsibility by the posting of bulletins is an interesting commentary on the power of publicity.

Thus far, there has been no quarrel with the adage that the absent are always guilty. In a sense this is correct, for all these systems are based on the philosophy that the absent are guilty—guilty in the sense that absence is an individual matter over which a concern has no control. Herein lies the point of difference, for there is a control that can be and should be exercised by the employer. An ounce of prevention is said to be worth a pound of cure. We have just been discussing the pound of cure. The ounce of prevention is rather a new departure.

One of the first plans which has been put into practice has been the rewarding of punctuality and regularity by means of bonuses. These may take several forms. Some are purely cash, some are cash plus the added incentive of a vacation, some are simply tokens of one sort or another.

The Beacon Falls Rubber Shoe Company, in order to induce their force to be punctual and steady, adopted the scheme of paying a dollar a week bonus to any employe who turned in a perfect ticket

for a week. This had the result of reducing their absentee record by nearly thirty per cent. The Detroit Steel Casting Company gives a bonus of twenty-five cents for each working day during the payroll period. Thus if an employe works a thirteen-day period he receives a total bonus of $3.25. This system has only been in use since July, 1916 and has not had time to prove itself. The company feels that it has done much to keep the men steadily at their jobs. At the Bridgeport plant of the International Silver Company they have instituted a service reward scheme, whereby the company pays 5 per cent of a man's weekly salary if he is neither absent nor late during the week. This service reward is paid four weeks after it is earned, providing of course the man is still in their employ. At the outset only 69 per cent of the force qualified for this bonus. At the present about 81 per cent qualify and the percentage of absence and lateness has been cut from 46 per cent to 33 per cent. It is perhaps well to bear in mind, in this connection, that labor conditions in Bridgeport have been about as acute as in any city in the Union. The bonuses mentioned so far have simply been cash payments.

Some concerns go even further. The A. M. Collins Manufacturing Company, for example, decided upon a premium of a week's vacation with full pay to every woman employe who during the year had not lost more than ten full days. The Saturday half day is counted as a full day. Absence is excused in cases of sickness if a doctor's certificate is presented. The company feels that while all the employes should have a vacation, the results are much more beneficial when the employe knows that the time he is losing is not costing him money. Forty per cent of the employes of this concern now receive a vacation with pay. The Leeds and Northrup Company give a bonus of a quarter of an hour extra each day, *i.e.*, an hour and a half a week to those employes who are on time every day. They also have a vacation plan, based on service. Any person who has worked with the company five years is entitled to a day's holiday with pay for each year he has been with the company. Thus a seven-year man will get a seven-day vacation wth pay any time he chooses between May and September. The foremen and office force are allowed to take their vacations—and in their cases these days are extra for in any case they receive a two weeks vacation with pay, at such times as they see fit, a day at a time. This of course gives them a feeling that they are on their own time and not asking any

favor of the company. Over 50 per cent of the present force has been with this firm five years.

The Curtis Publishing Company, as a recognition of satisfactory service, based on unusually good attendance or promptness, gives out each year a series of tokens as awards. This may take the form of the original of a painting reproduced in one of its publications, or a set of books. In 1915, 850 awards were given out. One hundred and fifty-six of the force were neither late nor absent. Five hundred and sixty-three employes were not late during the year, and 92 had a perfect attendance record. Twenty employes of this concern have been neither late nor absent for five years. The Kerite Cable Company gives turkeys to many of its employes each Christmas.

Several other concerns, while they have no bonus system at present, are contemplating the establishment of one in the near future. The Dennison Manufacturing Company is contemplating to pay a bonus for perfect attendance over a period of six weeks. They expect to pay this in a pay week in which a holiday occurs, which would virtually give all hour workers a chance to pay themselves for each holiday simply by being present every working day. For this purpose the working year is divided into eight periods of about thirty-eight days each. The Hood Rubber Company also is considering giving a bonus, and many others have plans in the making.

Another factor, ranged on the preventive side, is that of home visiting. This method suggests both cure and prevention. It may be carried on as part of the work of the employment department, but is often done by firms which have no regular employment office. The first work of this sort was developed by the Ford Motor Company and was at first severely criticized, partly from the fact, as some one has pointed out, that this concern has the unfortunate habit of doing things first. But be that as it may, every morning the time department turns over to the investigating staff a list of absentees of the previous day. Each absentee is carefully looked up. The result has been that where formerly the daily absences totalled about 10 per cent, the number is now less than one half of 1 per cent.

The Cleveland Metal Products Company has found this system most satisfactory. They employ two nurses, one of whom stays in the dispensary while the other visits absentees. These

nurses are provided with automobiles in order that as much territory as possible may be covered. The visits of one nurse cut down absentees in this concern from 5 per cent to 3.5 per cent, and by employing two nurses the absenteeism in 1915 was only 1.9 per cent. The Bamberger Department Store visits the employe in cases of sickness. Hart, Schaffner and Marx follow out this same idea, working through their medical department, and have found that one visit from the nurse, is in almost all cases sufficient to reform the unnecessary delinquent.

By no means all of such plans meet with entire success. We quote a paragraph from a letter from the Fisk Rubber Company—

> The system we had in effect was satisfactory enough, but the principle evidently was wrong as the percentage of absentees was not cut to any extent. Our plan of operation required two nurses, two automobiles, with the necessary chauffeurs, and three clerks with the necessary supervision. After a while the men became very clever with their excuses, and as a matter of fact there never was so much bowel trouble and headaches since the world began. To much time and money are consumed by the endeavor to visit all absentees. I think the proper way to handle this would be through a labor tracer, etc."

The work of employment departments must not be overlooked as an element in the ounce of prevention. Many of these today carry on physical examinations which determine the physical status of a man before he ever takes a job, and then to maintain his fitness after he has come to work. The Joseph and Feiss Company maintain a physician, an oculist, and a dentist for these purposes.

Another feature of the operation of an employment department is the following up of the work of a man after he has taken a position. Thus the coupling of the right man to the right job relieves a great deal of that discontent which fosters so many industrial ills. Unfortunately it is not possible to measure discontent in figures; but it is obvious that a man contented with his job and surroundings is apt to work more steadily than one who is not.

We hear a great deal in these days about "safety first." The application of this slogan to industry has meant the material cutting down of accidents, and this has meant the reduction of absences. For instance in two huge steel plants, of approximately the same size, plant A has used methods to prevent accidents, plant X has used none. In plant X, in the steel works, the number of days lost

per man over a period of three hundred working days is 16.9 per cent. In plant A this percentage is only 4.7 per cent. In the yards of plant X the average daily loss is 4.2 per cent, while in plant A it is just half that or 2.1 per cent. In this campaign of "safety first" the workmen's compensation act has been the largest single factor in the reduction of accidents.

The prevention of unnecessary fatigue has some bearing on our problem, as it avoids lateness and perhaps absence during the next working period. The Joseph and Feiss Company combats fatigue by a change of work at given periods. A certain machine company shuts off its machinery absolutely during a stipulated part of each day. But here again we simply have opinions and no figures.

The use of alcohol is an ever troublesome problem. Some firms refuse to employ a drinking man. In plants where there is night work and nearby saloons, it often becomes a serious problem to get the men to return to the shop on time when the work recommences, after the shut-down at midnight. To combat this condition the Philadelphia plant of the Barrett Company shuts down for only half an hour at midnight, this time being shortened at the other end. It then serves coffee to its employes free of charge. The result has been that of the seventy men who used to go out at this time, now only four leave the premises. It is possible that desirable lunch rooms within the factory would have the same effect.

Specific efforts to attack the problem of lateness and absence are things of such recent origin, that many of them seem of more theoretical than practical value. In attacking the problem, it is well to point out that it is not suggested that the personal liberties of any employe shall be interfered with. It is the avoidable and unnecessary absence and lateness that are the objects of attack. The difficulties of studying the general problem may be summed up in the following paragraph of a recent letter from a large silk mill. It is typical.

> In reply to your request for information as to lateness and absence at this plant, we must state that while we are at present employing a time keeping system which adequately informs us as to these factors, we have not to date accumulated sufficient data to be of practical value to you in your present quest. If we could offer you our seasoned information a year from date, we should be glad to be of any possible assistance.

The nucleus of this and of many similar letters lies in the last sentence. With seasoned data, comes action, and from the present indications of this newer conception of the relations of employer and the employe, we take the liberty to assume that in this action, we shall find continued support for our second heresy, that the absent are not of necessity guilty and lessened evidence for our first, that the absent are not of necessity conspicuous.

CONCLUSIONS FROM A SURVEY OF OVER FIVE HUNDRED EMPLOYES' BENEFIT ASSOCIATIONS

By W. L. Chandler,
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The employes' benefit association is the result of evolution and has apparently come about through a desire on the part of the men to coöperate for their mutual benefit. Capital has but recently awakened to the value of these organizations in steadying the force and in reducing some of the unmeasured leaks of business.

No method has as yet been accepted as showing clearly the cost of absenteeism, or the loss of both quality and quantity of production due to workmen being harassed by debt incurred through sickness, or to dragging themselves around in an effort to fight off disease without proper medical attention. The presence of such losses is obvious on most casual consideration of the subject. Consequently, the only problems are those of measuring the amount of loss and of devising methods of loss reduction. We may utilize the employes' benefit association for the mutual relief of employe and employer from such conditions. This has proven one very effective means of reducing some of these newly recognized leaks.

Some employers for many years have been coöperating with associations among their employes. However, it is only in the last few years that capital can claim to have frankly acknowledged the value to the employer of these associations. Recently various stock insurance companies have been sitting up and taking notice of the possibilities for them in this new era which is developing. In addition to increased activity of the companies regularly writing sick and accident business, some of the larger companies are now offering group insurance through employers in such forms that premiums are paid to the insurance companies monthly by the employers. The entire cost is absorbed by some corporations in connection with their welfare work while others collect from the employes through the pay envelopes for part or all of the premiums. Some of this group insurance embraces life insurance only. As a stabilizer of labor, life insurance does not seem to me to embody enough of the

great essentials which attract the men. Any gratuity receives a welcome, but the money spent by an employer for life insurance premiums might be used in other ways to greater advantage to both employer and employe. Group health and accident insurance is something which can more readily be visualized by the average man and as a stabilizer produces more favorable results than group life insurance.

The greater the frequency with which a man feels the benefits derived from a gratuity or an investment, the more he will appreciate it. In an average working force of one thousand men, seven will die each year. In such a force then the group life insurance plan will demonstrate its value to the employes less than once a month and then very few employes hear about the payment of the benefits. In such a force of one thousand men someone is always either hurt or sick and frequent contact of the individual employe with the disability benefits is secured either through his being a beneficiary himself, or because he is serving on sick visiting committees or in other ways sees benefits going far to relieve his friends in times of need.

Employes' benefit associations usually operate without much overhead expense. There is some expense of operation but the employer usually pays it. He does not always realize it, but he pays it just the same. In some few cases the secretary circulates among the members collecting dues at regular intervals. It is probably safe to conclude that this is always on company time, resulting in relatively heavy cost to the employer. However, in most cases dues of the members are collected through the paymaster as an accommodation to the organization. This plan is far more effective for the association and costs the employer less than the former method.

Having almost no overhead expense, the association can handle business practically at cost and in many cases, through having outside income, for less than cost.

An employer, who is aware of the value to him of having all employes become members of their benefit association, may contribute toward the cost of maintaining the association and thus foster the organization operated by the men themselves, but his interest should not lead him beyond the point of coöperation. *The members should know that they are operating their own association.*

An employer's dollar spent in this way will go much farther than when part of it must be diverted from payment of losses to cover the overhead of a stock company. Stock companies have a wonderful field of usefulness but they are by force of circumstances unable to compete with the employes' benefit associations.

No form of insurance will sell itself. In associations operated by employes without the coöperation of the employers the percentage of members to total number of employes varies from two per cent upward, the average being about thirty per cent. In cases where the employers coöperated in jointly managing the associations the average was over sixty per cent, and where the employers managed the associations alone the average was over seventy-five per cent. This points to one very important moral, and embraces one of the essential features of organizing such an association. In addition to that, it shows very forcefully the need for reorganizing a great many of the associations now in existence. Consequently, I believe those features which are essential for organizing will be equally essential when reorganizing an association.

This was the condition that confronted the Dodge Manufacturing Company's mutual relief association two or three years ago. The association was about to celebrate its twenty-fifth anniversary. The corporation had maintained the attitdue of allowing the employes absolutely a free rein. Some of our directors felt very strongly on this subject. The result was that in attempting to allow the employes to exercise their own judgement without interference from the corporation, we were, in reality, depriving them of the counsel and benefits which they might receive from directors and officers. Efforts had been made for several years to urge the officers of the benefit association to campaign for new members, and quite a little stimulant was thus administered. The membership continued, however, with slight fluctuation, to include between thirty-five and fifty per cent of the employes. It seemed quite evident that something was lacking; that this proposition must be studied just as any other problem of product, equipment or labor. We set out to do that, making up a questionnaire which went to a number of corporations who we believed might be operating benefit associations. We made notations of the various problems that suggested themselves, and which we then set out to solve. It developed that we had seventy-two problems for the solution of which we must secure

data. We found that the department of labor at Washington could give us a great volume of data from which we were enabled to compile percentages and other figures to aid in solving these problems. This, together with the information received in answer to our questionnaire, gave us considerably more data than we had anticipated when we started out.

Statistics themselves avail little in the brief consideration of so important a subject; suffice it to say that data were secured covering approximately six hundred benefit associations, and copies of the by-laws were received from seventy-eight. We digested them as best we could. For convenience in studying the various by-laws, we cut them up, and where necessary made digests of the individual provisions; so that, by means of a card file, we were able to gather into one group the various provisions for handling the numerous situations that arise, such as the duties of officers, amounts of benefits, and administration problems generally. From this card file we compiled a set of by-laws which were then submitted to the members of our own association, who were asked to appoint a committee to go over the matter thoroughly. This committee, representing the different departments in the plant, met on "company time" one afternoon a week for about three months, with the result that our present by-laws include what, to that committee, seemed to be the best features of the seventy-eight.

Thus, the corporation was of benefit to the association: first, in securing for it this volume of data that it might reorganize: second, we were able to show it that above all its plan must be attractive. The association is in the business of selling insurance; it must have a proposition which can be readily sold to the employes. We were able to show it some of the psychological features of the proposition, not through a definite study of psychology, but by bringing the members to see the effect of certain methods of procedure on prospective members. One point was kept forcibly in mind continuously: *The entire plan of reorganization must be above suspicion.* There must be nothing about it which would permit the suggestion, by those of perverted mind, that the corporation had any motive other than the best interests of the employes. *All decisions were to be made by the employes.* We took pains to place before them, however, all of the facts, both for and against each proposition on which they were to ballot, so that they were benefited by the experience

and judgment of those who had experience in insurance matters and sales promotion, and in addition, the facilities for securing information.

One point stands out forcibly: *No matter how good the plan, it will not sell itself.* It must have barbs on it; it must not work *too* smoothly. There must be things happening to keep alive the interest and enthusiasm of all the members. It is not sufficient to depend upon the secretary or any other one man to secure all of the members; all employes must be warmed up and kept warm so that a new man coming into the plant will immediately feel that influence and *want* to come in.

Instead of making outright donations to the treasury of such an association, it is far better to offer bonuses to the members for the accomplishment of certain definite results. Gratuities never develop the enthusiasm which follows sustained effort made to reach a certain goal and to earn a bonus or prize. Convert the campaign for members into a game wherein each member may become a salesman watching for an opportunity to get a new employe into the association. The effect of enthusiasm may be seen in the fact that the membership of the association in the plants of the Dodge Manufacturing Company doubled in the month following the adoption of the new by-laws.

A number of different stimulants were tried for the effect upon both members and prospective members, as evidenced by the percentage of employes in the organization. Our biggest stimulant so far has been that of dividends. We brought to the attention of the board of directors of the employes' benefit association the fact that their treasury was increasing very rapidly; that it was unfair to the members to retain this money when it was not needed by the association; that they could and should declare a dividend equivalent to two weeks' dues. There was considerable hesitation, however, for fear that the soundness of the organization might be jeopardized, but, upon thorough consideration, and at the recommendation of the officers of the corporation, they agreed that it looked perfectly safe. To save bookkeeping, this dividend was declared in cash. Each member received an envelope containing his dividend, and bearing a message sttaing that the organization was quite prosperous; hence the dividend. The amusing part of the experience was that the membership went up about fifty per cent in the next six months,

and the initiation fees from this influx of new members put into the treasury more than the dividend had amounted to. Thus the organization not only got its money back, but increased its membership fifty per cent. However, the greatest value came out of the fact that after the first dividend was paid, as a surprise to the members, the solvency and soundness of the association were most emphatically impressed upon the minds of all the employes.

Successive dividends seem to be accepted more as a matter of course. Nevertheless, demonstrations of strength and solvency must be made at intervals to keep up the enthusiasm. This will extend the influence of the association into the furthermost corners of a plant.

As pointed out previously, it is very evident that the management of such an organization should not be left entirely to the employes. However, I do not favor a management exclusively of the corporation. In my opinion, a joint management should secure the counsel of the officers of the corporation, and the interest, enthusiasm and experience of the employes; thus the oganization is operated for the best interests and secures the greatest enthusiasm of all concerned. The average executive being of the individualistic type, does not clearly comprehend the viewpoint of the general employe who is of the collectivistic type. In my opinion, the joint plan of management is by far the best solution.

To revert to the discussion of ways and means of the employes' benefit association in general, some by-laws of other organizations provide that one-half of the board of directors *must* be appointed by the corporation; the other half by the employes. I believe it would be better to provide that "*not more than* one-half of the board of directors shall be appointed from the corporation officers." In fact, I prefer to say nothing about this phase of the matter, allowing the entire situation to rest upon its merits. The men will be very quick to know who among the officers of the corporation are with them and competent to advise them; and it will be noticeable that there will be no attempt on the part of the men to "railroad" anything through, provided that the corporation officers who take an interest in the work, are with them and keep their ear to the ground.

Some one to serve as an actuary should prove valuable in keeping an association on a sound basis. One familiar with insurance problems who is interested in piloting the organization may

well be selected and held responsible to the association for the business policy. Such a man may be found among the executives of the corporation. Another extremely important individual is the secretary. He should be elected by popular vote and like the actuary should be recognized primarily as representing the interests of members. The employer may indicate a willingness that these men devote the necessary time to association activities but the final choice of individuals should rest with the members.

One thing that struck me very forcibly was the desirability of voluntary membership. I found by investigation that in some of the organizations where membership was compulsory for employes, interest was absolutely lacking. The officers of such an association very soon become dictatorial in their attitude, and so far as I have been able to observe, the members in most of these organizations look upon membership as a burden which they must carry in order to hold their jobs. Thus the value to the corporation was absolutely lost, and while it had a value for the members, they could not see it, and, therefore, it ceased to exist for them. There may be some compulsory organizations that are not subject to this criticism, but I have my doubts.

After the reorganization of the association in the plants of the Dodge Manufacturing Company, no old members dropped out but the new ones were of lower ages. This decreased the average age. Where the peak of the membership curve had been at forty-one to forty-five years, it moved down to twenty-one to twenty-five.

It is generally considered that sickness may be greater among the higher than among the lower ages. A set of charts is now being prepared, which will show for the various age groups the relation between membership and the number of days off due to sickness or accident and the number of cases of each. Indications lead to the conclusion that some of my previous ideas may be upset.

An important feature is that of "waiting time." The charts which I have prepared on this point show that the bulk of disability cases are of short duration. The cases of six days' duration form sixteen per cent of the total cases of more than three days' disability. I believe that it would not be feasible to pay benefits for disability of less than three days; first, because of the high cost, and second, because an employe who is at all provident will have no difficulty in financing himself for a three days' sickness.

Much discussion was given to the matter of the total amount of disability for which the employes' benefit association should pay. The most popular selection was thirteen weeks. Some pay for twenty-six weeks, while others have different provisions. As an illustration of some of the features developed by the charts I have prepared, we shall assume uniform dues of ten cents per week for sick benefits. With three days' waiting time, it is possible to pay benefits of one dollar per day for thirteen weeks. If the waiting time were increased to seven days, the benefits could be increased to nineteen weeks without any change in the dues. If the waiting time were made thirteen days as in most compensation laws, the benefits could be paid for twenty-six weeks. This shows the effect of waiting time and the relation between waiting time and the duration of cases.

Many employes' benefit associations provide what might be called "step-down" benefits. That is, $1.00 a day for the first thirteen weeks; seventy-five cents a day for the next thirteen weeks; fifty cents a day for the next thirteen weeks, and twenty-five cents a day for the balance of the twelve months. Others pay small benefits as long as one lives and continues disabled.

I have prepared a number of very interesting charts on these benefits and rates. For example, step-down benefits throughout fifty-two weeks mentioned above of $1.00, seventy-five cents, fifty cents and twenty-five cents, would require dues of a trifle less than fourteen cents per week per member—other combinations in about that proportion. If it was desired to extend these benefits as long as disability continued, it would be necessary to add only two cents per week per member. These rates are based on a factor of safety of one-third. In other words, experience should not exceed two-thirds of the rate. This, however, is a necessary provision due to the fact that the statistics from which these rates were made are taken from the Dodge employes' benefit association, and checked up against the rather crude figures compiled from the statistics of six hundred organizations. They appear to be perfectly safe. I very much favor the step-down benefits, but experience has shown that it is difficult to bring the employes to realize the advantage of providing for a long-time sickness. They are all so cocksure that continued sickness will only be experienced by the other fellow.

There are two methods of collecting revenue. One plan is

by levying assessments. Psychologically, assessments are wrong; dead wrong. It is true that no matter how you collect the money, the amount needed is essentially the same, but to the average mind, an assessment plan seems to be always working over time. The men imagine that they are paying twice the amount that is really being collected, and that the assessments come twice as often as the facts really show. Regular dues at regular intervals are much more satisfactory from every standpoint. A member knows months in advance just how much his dues are to be and when they are to be collected. Therefore, he is never surprised when they are deducted from his pay. In settling upon regular dues, it is naturally necessary to make these dues sufficiently large to take care of the fluctuations in benefits in order that the treasury may be kept intact, and the need for assessments eliminated. Experience shows that the fluctuations in benefits are not extreme; and with a fair-sized treasury, the organization is able to navigate successfully with dues very slightly in excess of average requirements.

The question of dues appears to be a difficult problem, but in reality is comparatively simple when one has access to the charts prepared on the subject. The logical method is to first settle upon the benefits that are to be paid, and then compute the necessary dues to secure these benefits. It makes a big difference whether all members pay the same dues, or whether one member may select benefits that suit him and pay dues accordingly. For instance, the dues above quoted, or step-down benefits, are based upon a plan whereby all members of the employes' benefit association pay the same dues, or, in a large organization, at least enough of the members pay dues on a uniform plan to provide a satisfactory average experience. Stock companies writing sick and accident insurance policies find a policy paying $1.00 a day benefits with a premium of $1.00 a month a ready seller. This furnishes us a guide upon which to work, although I have found it operates better to quote rates in terms of weeks. The amounts look smaller, and the average employe is in the habit of thinking in terms of his weekly wage. It is, therefore, desirable to employ a language which he can readily understand. Ten cents a week seems to be quite popular, although our experience shows conclusively that the men do not hesitate to pay for anything in which they see value.

Another extremely desirable feature of this organization is

that, according to the by-laws, the organization may do anything to promote the general welfare of its members. Under this provision, the association organized a thrift club. In this thrift club any employe may authorize the association to deduct from his weekly pay any multiple of twenty-five cents. This must be left in the association treasury for at least fourteen weeks; if left twenty-six weeks or more, it will draw four per cent interest. This interest, like the dividends, for psychological reasons, is paid in cash and not credited to the account. This acts not only for the employe's benefit, but as the following incidents will show, is of great value to the corporation. When this thrift club was first started, the secretary of the Employes' Benefit Association made it a point to visit all of the spendthrifts throughout the plant, making a special campaign with them first. Man after man declared, "If the company will raise my pay, I will be glad to go into it, but I can't live on my present wage, let alone allowing you to deduct anything for your thrift club." Each of these fellows was appealed to further; he was urged to allow twenty-five cents to be deducted from his weekly pay on the grounds that the secretary wanted the moral effect of his name to influence other fellows who needed the benefit of such a plan. All of these said that they believed in the plan and were finally induced to lend their influence that way. As the weeks progressed, the secretary made it a point to see these fellows whose wages were "inadequate" and casually impressed them with the fact that this amount was climbing. This, coupled with the thought that they had induced so many others to join the thrift club, brought about the result that they volunteered to double the amounts until, within ten weeks, not one of them was saving less than $2.00 a week; some as high as $10.00. Before the fourteen weeks are up for any thrift member, the secretary makes it a point to see him and ascertain what he proposes to do with his money when he gets it. One of the follows who had been most enthusiastic in the contention that he could not live on his wage, said that he was going to have something that he had never before had in his life, and that was a bank account. Another fellow said that he had been married for fifteen years and had been head over heels in debt all that time, and that he was going to spend $15.00 of his saving for new clothes for his family, and that the balance would pay "every debt he had on earth," so that by continuing in the thrift club he would be able

to "look everybody square in the eye," and keep out of debt in the future.

The corporation benefits in all of this from the very valuable fact that these men, who formerly considered their wages inadequate, have demonstrated to their satisfaction that it was not inadequacy but carelessness that had prevented them from saving money.

One case is interesting; one member had accumulated $50; his fourteen weeks were not yet up, but his wife was operated upon, and and the doctor's bill was $64. The doctor told him that if he would "scare up" the cash right away, he would make it $50. He came to the secretary almost breathless to see if he could get his $50. It was gladly given him, and he saved $14.

The boys are saving through this means to get married; for winter clothing; for coal, and all sorts of things they want and need, including, in one case, a Ford. The man who saved for the Ford is the warmest booster we have.

A man who is proud of the employes' benefit association or of the thrift club, or baseball team, or band, must unconsciously have a good regard for the plant and organization behind it; which, barring irritance of some form to disturb the situation, will build for a low labor turnover.

WHO IS BOSS IN YOUR SHOP?

By Morris Llewellyn Cooke,
Consulting Engineer, Philadelphia.

The European War has developed into a high-powered advertisement for community organization, for the scientific in management and even for capacity in the individual. Notwithstanding much that might be cited to the contrary, our great national desire is to be efficient in both government and industry. Individually and as a people we are almost relentlessly seeking the bases of such Efficiency; and we use the word capitalized as a synonym for the maximum of considered well-being. This can be affirmed notwithstanding what appears to be the most conspicuous fact in our current industrial development, *i.e.*, that more and more our people refuse to be efficient beyond their own desires. As the late Robert G. Valentine expressed it—perhaps a bit more emphatically than is warranted by developments to date—"the days of compulsion—the days of service without consent—are over. . . . . In all those areas of life wherein man deals with man great breaches have been made in the ranks of compulsion." But it would be a great mistake to assume either that this greater liberty of action demanded by the individual necessarily makes for inefficiency or that it acts as a challenge to individual as opposed to group leadership.

Apparently the New World has little to gain from any blind copying of foreign models in this matter of industrial organization and control. German efficiency both in government and industry depends on a philosophy absolutely inconsistent not only with American traditions but with American ideals. In view of the virtual abandonment "for the period of the war" of the fabric of industrial practises and mechanisms built up in Great Britain during two generations largely by the labor unions, we are warranted in viewing what *was* the British industrial system with something more than suspicion. Are we not warranted in the belief that there is in the making in America a scheme of direction and control both for government and for industry vastly more efficient and at the same time vastly more democratic than has heretofore been deemed possible?

SOME ASPECTS OF AMERICAN SUPERIORITY

American life has a decided advantage over that on the continent or in Great Britain in the more numerous points of contact between groups—if indeed there is not with us a more genuine understanding between classes. Then, notwithstanding much that at times seems to argue against it, is there not among our people a deeper response of the individual to the Authority within himself than is to be found among other peoples? With these two points in our favor and when as a nation we have grasped more completely the significance of that union within industry of science and coöperation which we call scientific management, may there not be brought about an American efficiency—at once an expression of the individualism of our forefathers and the vehicle for our more recent collective aspirations? The sanctions of this system will not be militaristic as are those encountered even on the industrial side of German life. It will avoid the pitfalls of that type of group action which is so largely responsible for "muddling" in the United Kingdom. And we have the right to expect that pervading its every activity there will be something of the spirit—the *élan* of the France of our dreams and of present-day realities.

We Americans cannot put our trust in the much heralded German efficiency for it gives us a kind of science but no genuine cooperation. Science without coöperation is a relatively lifeless thing. America's high calling is to prove for our common humanity that there is a method of production growing out of individualistic leadership coupled with an essentially democratic control which is not only more conducive to race-happiness but which in its very nature is scientific and is designed to outstrip any system which is the outgrowth of a military or an autocratic régime such as is found in Germany. Military efficiency, it must be remembered, consists largely in the ability to mass the greatest possible strength at a given place at a given moment. Industry on the other hand struggles rather for steady performance. Peaks or depressions in either demand or output in industry are to be regretted. The "supreme moments" of the battlefield are taboo and even spectacular campaigns rarely result in permanent improvement.

THE MOVEMENT FOR INDUSTRIAL DEMOCRACY

We can admit that the movement for industrial democracy in this country in its more obvious aspects has been largely away from rather than toward science and coöperation. But there are reasons for believing that the organized labor movement in the United States must in the near future dig itself in along a front somewhat different from the one it has occupied in England, and by reflection in this country, for a generation or two past. Some at least of the faces of this new formation seem reasonably clear.

Two men having formed a partnership may adopt any one of three plans for the conduct of the enterprise. One of the partners may be put in supreme command, expressed or understood, or all matters of moment can be decided by joint action, or there may be an assignment of function as between the two partners so that one is supreme in say selling and finance, while the other has the final decision as to manufacturing. This is a statement in very simple terms of a problem common to all management. Upon the relation thus established between the individual and the group depends the conduct of a city or a nation, of a single manufacturing establishment or of an industry.

A partnership of two men is admittedly a simple form of human coöperation, but immediately the question of individual versus group direction and control presents itself. To enlarge this group from two to the hundred millions of population in the United States does not alter the underlying philosophy or interfere with the scientific determination of the proper field in which group and individual action should each operate.

Government began with the unhampered will of the strongest single individual and under democracy's warming influence has broadened out until larger and larger groups eventually control political action. In this transition from a régime in which the administrative program of an individual was enforced by the selfsame individual, to the present time where in matters of government—if not of industry—all administration is supposed to find its warrant in the consent of the governed. We have not always made the sharp distinction which appears necessary between the administrative code itself and the authority which vitalizes it into action. The democratic ideal would appear to be administration by indi-

viduals with collective pressure when necessary, rather than too much insistence on the part of individuals.

SOME RECENT POLITICAL AND INDUSTRIAL TENDENCIES

Recently there has been noticeable in the political thinking of the United States a demand for at least a partial return to administrative individualism as evidenced by movements favoring the short ballot, the city manager, longer terms for administrative officials, centralized responsibility, smaller legislative bodies, and the substitution of judicial decisions for those of juries in certain classes of litigation. In our political democracy we are beginning to admit that efficiency comes through giving authority to individuals and requiring performance from them. The initiative, referendum, and recall are simply some of the checks and safeguards which are essential parts of this scheme of management in its application to government.

Scientific management stands for the same tendencies in industry. It recognizes that one fact may invalidate a hundred opinions. Scientific management seeks to set off the territory in which, because the facts are obtainable, action can be determined by the facts rather than by caprice. A fancy, whether it be the fancy of one or of a million, is still a fancy. We cannot vote a fact. Action by opinion ebbs and flows while action based on the facts can be reasonably consistent and permits of logical and continuous growth. The truth does set us free.

In our scheme of industry and of government the distinctions between these two territories—one of law and the other of judgment—will become more apparent. Collectively we shall gradually learn to trust individuals to read the facts. We may in time class many of these individuals as experts and ultimately revere them. Nor need we abandon the scheme because we are occasionally betrayed by misjudged abilities and limited vision. On the other hand the democrat will not be asked to *vote* once a year on town clerks or minor bond issues. Rather each hour in the day in industry and in life he will render his judgments made all the more necessary in a world broadened by the discoveries of science and deepened through our quickened insights and appreciations.

LABOR UNION ATTITUDE DIFFERS

While the tendencies in our political democracy seem to be in the direction of a larger degree of individualism, certainly in that part of the labor movement which has become organized no such drift is as yet to be observed. According to what appears to be the code of the labor unions and of some of their most distinguished advocates the most satisfactory way to settle almost any given question is to vote on it. If by its very nature it cannot be voted on it must then be deprecated. Democracy and voting are, under this dispensation, synonymous terms. It may be easy to prove that the leaders of the American Federation of Labor do not hold to this very consistently as a general philosophy of life but nevertheless it colors most of the relations of organized labor to the public. In fact the growing demand for what has come to be known as "consent" under the most frequent interpretation seems to involve a maximum of *group action* rather than a maximum of *action by individuals*. "Consent" as nearly as I can make out involves a much broader application of the theories underlying collective bargaining. Our activity and loyalty even in minor matters is to be secured only after a collective measuring of the pros and cons.

The collective bargain has found its field principally in the agreements between individual employers and their employes and has concerned itself largely with hours and wages and only secondarily with the other conditions surrounding employment. "Consent," on the other hand, seems to involve much broader relationships of the group which work for wages to government, to industry and to society. The relatively primitive struggle for higher wages and shorter hours gives way in a sense to a struggle for standing. Minor claims such as those for compensation on account of injuries are superseded by a claim to a share in the conduct of the business whether it be a manufacturing establishment, an industry, a city or a nation. I am picturing this widening of the front of the labor propaganda not because I lack sympathy with it but only to question the one phase which puts a premium on group administration and group decisions.

It may seem axiomatic that because in working out our political democracy we have been in the habit of expressing through the vote our collective pleasure on all kinds of matters—questions of judgment as well as questions of fact—that therefore we must necessarily pass through a similar period in working out our industrial

democracy. But possibly we in America can, because of our growing respect for science and our dedication to coöperation, work out a system by which those who work with their hands and their heads and those who represent property interests will each have their proper share in the conduct of industry and in its rewards and this without the necessity of resorting to a vote on the length of a mine car, the proper shovel load for a day laborer or the use of instruments of precision such as the stop watch.

SIGNIFICANCE OF THE DEMAND FOR "CONSENT"

The growing demand for "consent" as voicing a natural reaction against a too autocratic control in industry is to be welcomed without any reservation. But if "consent" necessarily implies an unwillingness to follow the individual—except after a vote—and substitutes everywhere group action, we will most certainly have stepped from the frying pan into the fire. For it is only through individuality in management that we guarantee to society the maximum of production and bring to each worker the largest possibility of joy in his work and, more important still, keep free the human spirit for those adventures without which it were better that this old world of ours should grow too cold for human habitation. As Robert B. Wolf has said, "the *function of the group* should be the greatest possible amount of freedom for the development of the individual." Industrial democracy has forged the collective bargain to act as one check against the excesses of individualism. But we must be careful lest the check be used, as some of our political checks have been used, to destroy all chance of positive and strong and timely action.

One of the principal indications of an impending shift in the front of the labor movement in this country is found in the fact that many of labor's foremost spokesmen admit that in increased production lies one of the most hopeful routes to a higher social and economic status for those who work with their hands. In several recent reports—largely influenced by the American Federation of Labor—where this question of the effect of increased production was distinctly raised, labor's representatives refused to oppose increased production as such. This is a far step from the "Ca canae" and "soldiering" recently and openly advocated and practiced. The laboring classes were of course partially forced to such resorts

by the attitude of boards of directors in refusing to administrative officers the right to pay to especially proficient workers high wages—or at least to pay wages much above the district scale.

Scientific management stands first, last and all the time for increased production. But production is interpreted in the broadest fashion as including everything that makes for human happiness. Thus Marshall points out that art and even the concepts of the mathematician may be production in the very highest sense. Scientific management holds that equal opportunity and liberty itself are aids to production, that poverty is unnecessary and that labor does not even approximate being a commodity.

Anyone who doubts whether this matter of "consent" is to be pressed should read recent articles on the subject which have appeared during the last few years in some of our leading periodicals[1] over the signatures of Justice Louis D. Brandeis, Minor Chipman, the late Robert G. Valentine, John P. Frey, secretary of the Iron Moulders Union, Felix Frankfurter, Robert Bruère, and the late Robert F. Hoxie. One finds of course even among this group of writers considerable variety of opinion as to the means which it will be wise for the laboring classes to use in giving voice to "consent." But no one of them apparently has much faith in the possibility of a fairly rigorous individualistic administrative policy that is to be protected and even induced under group control.

This whole question has been brought to a focus recently through the passage by Congress of legislation absolutely prohibiting premium payments and the use of the stop watch in several important branches of the government service. At the last session strenuous efforts were made to broaden the field for this legislation so as to include all classes of government work. Of course these are only preliminary skirmishes in a legislative campaign, whose real object is to forbid the use of these aids to a genuine science of industry in all establishments having government contracts, and finally to include industrial establishments generally.

At least one large national association of artisans—the electrotypers—have recently established a uniform selling price for the

[1] See especially the discussions in the *Bulletin of the Taylor Society* to promote the science of management. Dr. Harlow S. Person, Dean of the Tuck School of Dartmouth College is president of the Taylor Society and H. W. Shelton, Hanover, N. H., is secretary.

product on which they work. With both the wages to be paid by the employer, and the prices which he may charge for his product fully determined by group action and virtually by the organized labor group, it will be admitted that a radically new industrial situation will have been created. The field for "consent" will have been materially widened.

Everyone seems convinced that we are on the threshold of some very considerable readjustments in our American industrial world. It is entirely possible that present tendencies may become emphasized. But it seems equally possible, that organized labor will in the immediate future discover the futility of some of the remedies which are being pushed today with the utmost enthusiasm—administration by groups rather than by individuals among the number.

Perhaps the most obvious mechanism of group action in industry, as it is in government, is the committee. My views on committee management have been fairly adequately expressed in *Academic and Industrial Efficiency* published by the Carnegie Foundation for the Advancement of Teaching. But there are two additional points that should be made. In almost every instance which has come to my attention in which a committee in a factory was supposed to have full responsibility it had in reality very little. A shop committee has responsibility only when it pleases those who hold the purse strings to let it have its way. A committee may decide 999 things out of 1,000, but the fact that the members of the committee are kept from deciding the last one, and of course the critical one, keeps them from having the same kind of responsibility which the owner of a business has. Authority with such a string to it is not what is really meant by "consent." Employers should not flatter themselves that workingmen confuse committee control with genuine industrial democracy. It is of the essence of democracy, whether political or industrial, that it shall be motived from below and not dictated from the top.

LIMITATIONS IN APPLICATION OF "CONSENT"

Under any reasonably modern or discerning attitude toward industry it must be conceded that in those things we do and in which we ask the worker's coöperation we must have his permission or "consent." But care must be taken to see that in freely granting

this contention we do not appear to be advocating something that is unthinkable. No surgeon, for instance, would operate on Samuel Gompers for appendicitis without the latter's permission. But once having secured Mr. Gompers' "consent," no reputable practitioner would permit him to dictate as to instruments or methods. In thus placing himself in the hands of this type of expert, surely Mr. Gompers does not feel that he compromises in any way his independence.

All workers from the top to the bottom are entitled to essentially the same treatment and consideration. I wish the opportunity to say whether I will or will not. I cannot logically deny this to anyone else. Nietzsche says, "Whoever has inflicted upon you the law from without has degraded your moral individuality." It is not desirable to have a man do a thing merely because I tell him to do it. Obedience is rather a primitive virtue. I wish my associates to assume that I am sincere in wanting them to do only those things which they elect to do after as full an acquaintance with the facts as the conditions under which the work must be done makes possible. It very rarely occurs that things fail of the doing on account of this attitude. In other words, "consent" may be interpreted as something larger than the opportunity to vote on each individual problem. Perhaps someone asks what we are to do with the so-called malcontent and kicker. An inquiry as to why such a one is discontented might develop the answer to the question. But even if it does not I am not sure but that any workshop is better for an occasional disgruntled employe. They are not so disposed every hour in the day. The task of winning them puts everybody on guard. One or two cats are not undesirable in a workroom, although it will be admitted that too many members of the feline family might interfere with the even flow of the work.

Is "consent" in reality always a collective matter—does it always involve group action or can it on occasion become a matter of the individual entirely? May we with safety allow this individual "consent" to apply broadly to a field involving not one, but an indefinite number of decisions? Similarly may it not be possible to make individual "consent" operate not only for the moment but throughout a period of time during which many decisions will be reached? These do not seem to be concessions antagonistic to a proper self-respect on the part of the individual worker nor to the

solidarity of the working classes nor in fact to the maximum of industrial freedom and democracy. But these conditions are vitally essential if we are to develop genuine American efficiency. Each day the discoveries and developments of science make the opposite course increasingly unthinkable. It is hard enough today to keep pace with the possibilities of progress with functionalized management, which of course means the leaving of final decisions in each function to one man rather than to a group. But in the immediate future it is going to be very much more difficult. You will recall Mr. Taylor's prophecy that within two generations there would be 50,000 books on industry for every one we have today. Hugo Münstenburg says in *Psychology and Industrial Efficiency:* "In a large manufacturing establishment the manager assured me only recently that more than half a million different acts have to be performed in order to complete the goods of that factory." This may have been an exaggeration but I know of no industry where the operations are not in the hundreds of thousands. To hold that we can permit every move in an industrial plant to be submitted to a vote simply shows a lack of understanding of the game of industry.

PROPER RELATIONS BETWEEN THE GROUP AND THE INDIVIDUAL

The cause of popular rule in this country and elsewhere seems to depend upon the correct decision as to the broad question of the group versus the individual. The system demanding one king gives way to a system of many kings—kings of the counter, kings of the lathe and loom—all kings, but only by virtue of superior knowledge. They *know*. But the reign of each is dependent upon the general acceptance of the individual's right to decide on facts and conditions. Our progress, and even our security, seems to lie in having the vast majority of judgments rendered by the informed individual.

Should we not learn in every relation in life to follow the lead of the particular individual who is charged with any given function, whether he be the President of the United States, the traffic officer, or the clerk in the office? We must not only follow these leads, but use our influence to have others do the same. On the other hand, should we not train ourselves to perform one or more functions so efficiently as to command the respect and loyalty, and reasonably willing service of those upon whose support we are dependent for success in the accomplishment of the work in hand—

the earning of our livelihood and whatever success we are to achieve. I personally wish to live in a world where it is possible for me to conduct myself along these lines and in which everybody else shall have the same opportunity. This will never be possible in a world run by shop committees or determining boards, or by labor unions, especially if the latter are so organized that everything has to be decided by group action. Both as affecting the individual and the nation, the developement of real democracy depends upon utilizing the high power of individual action, coupled with all the safeguards that can be erected through appeal, investigation and review, and the freest possible publication of results, with the final action based on the judgment of the governed.

I do not wish to have any misunderstanding about my attitude toward the responsibilities and the rights of individual employes. I believe that the *most important function of management* is to develop within the factory an educational system designed to get every employe "going from within so that he will run himself," in order that he may gradually assume a larger and larger share in the general conduct of the business. "We want all along the line," to quote H. B. Drury, "not only men who can do what they are told to do, but men who can do things we would never think of ourselves. We want men who have enough interest, and education, and experience and boldness, to make positive contributions to the intelligence and vigor of the work." This requires something more than lip service and hand service. It means head service and heart service.

To ask committees, however, to pass constantly on matters about which by the very nature of things they can have at best a minimum of information, is like giving unbridled liberty to a boy because you want to make a man of him. It is demoralizing to any man to be given the opportunity to deliberate and to decide on matters when he is without sufficient education and special preparation and an adequate fact basis, for a scientific decision. I believe in advisory committees, but in each function of the administration the final decision must be made by the individual. Nothing must prevent the individual from making decisions whenever in his judgment the time to decide has arrived. Decisions must be open to the fullest possible investigation and review, followed by a reversal of the decision if the facts reinterpreted so dictate.

There is one fact connected with industry which requires special consideration. Very few people, either in the labor ranks or out of them really wish to assume or are able to assume broad responsibilities. The work of the future will be to teach people to be eager to assume responsibility and to coöperate effectually. And this cannot be brought about unless the worker is inspired with joy in his task. Hereafter the Captain, whether of industry or of government, will necessarily be the man who loves, and loving, understands, and understanding, builds and leads and inspires great numbers of his fellows.

WEAKNESS OF COMMISSION REGULATION OF INDUSTRY

Since the discussion of the eight-hour day for railroad employes became acute, we have heard a good deal about the possibilities of relief from such situations through wage boards and industrial commissions. To advocate any such regulating agency in this field at the present time is simply to say "Let George do it!" It is not a solution. Let me quote four typical and random paragraphs from recent orders[2] of the New South Wales Industrial Commission to give you an idea how industrial regulation by commission works:

a. If the work required of them is not in accordance with the general custom of the trade, and is not covered by the definition in clause 8 of the award the drivers cannot be compelled to do the loading and unloading.

b. The rate prescribed for a driver of an engine with a cylinder under 12 inches in diameter is 1*s*. 4½*d*. per hour. Nothing extra need be paid to a driver who is required to clean windows, etc., but the rate mentioned must be paid in any event.

c. An assistant is an employe other than a pastry cook, packer, apprentice carter, or motor-wagon driver as above defined and who does any or all of the following work, *viz:* bring in raw material; wash, clean and grease pans, tools, tins, and other utensils; clean and wash machines; label tins and boxes; wash and sugar goods; wrap cans and pastry; crack eggs; clean fruit and cut peel; put on and take off peels; attend reel, traveling and draw-plate ovens, provided that a journeyman is in charge; place goods into and take goods from tins, trays, pans, trucks, racks, bins and cupboards, before, during and after the manufacture; pack goods in bakehouses; clean bakehouses, yards and premises, feed and take from machines, put on and into and take from tins, trays, and pans any goods in any stage of their manufacture; top and bottom pies.

[2] *The New South Wales Industrial Gazette* issued (monthly) by the Department of Labor and Industry, Vol. X, No. 4. August, 1916. Pp. 685, 721, 845, 872.

d. Men working in wet places are to be paid 1*s*. per day extra irrespective of the time so engaged. *Note*—Such wet places are to be determined and declared to be such by the employer and employe by mutual arrangement. In the event of the parties failing to agree it shall be referred to the chairman of the board for his decision.

It should be a matter of deep concern that except for the labor unions there are almost no routine agencies in American industry through which may be obtained an expression of shop opinion—individual and collective. The typical employer claims that he knows what his men think. But as a matter of fact it is as impossible to get the real attitude of mind of a worker or a group of workers from the employer as it is from the labor leader. The machinery through which complaints can be safely made and shop justice gradually established is yet to be devised. As new problems will always be coming up, the settlement of present ones is first of all necessary. The struggle must be to keep at a minimum matters on which debate is desired. The effort must be to anticipate any proper demand of an individual worker or group of workers as to hours, wages, or anything else. To plan for this kind of thing is the function of the highest officers of a company. The average foreman is too preoccupied with the day's work to do it.

COÖPERATING WITH THE LABOR UNIONS

The labor unions have for years been quoting Carlyle in using the words "Organize, organize, organize." Without going further they are misquoting him. However, when Frederick W. Taylor wrote *Coöperation* into the world's industrial creed and into the mechanisms of industry, he altered—and to an extent weakened—the argument for organization as this has been practiced by labor unions in this country and more especially in England.

To admit a labor union to a plant not previously unionized or to go through the forms of coöperating with one already there does not necessarily mean coöperation in the sense in which Mr. Taylor used it. Sometimes it is easier to admit a union than to keep it out. Again it may be easier to appear to coöperate than to reveal an actual attitude of opposition. The fundamental test is not whether you have unions or do not have them. In some sections of the country and especially in the larger industrial establishments the complete absence of unions would indicate something peculiar in the man-

agement. It is equally true that most manufacturers having unions and taking credit therefor are claiming something to which they have slight title. Ninty-nine manufacturers out of one hundred who have unions have them only because they cannot help themselves.

I have heard of one plant in which the employes are treated in enlightened fashion that was forced by pressure of a peculiar kind exerted from without the establishment to go through the forms of unionizing on practically the standard basis because as the national leaders said it was such a good place to work that the very fact that it was a non-union shop constituted a constant reflection on the organized labor movement. This means that employers who treat their employes in the matter of wages, hours, safety appliances, etc., even below the average may easily be immune from labor agitation while those who study and even sacrifice to produce improved conditions become the more liable to interference on the part of organized labor.

If scientific management stands for anything it stands for cutting out the "bunk" in every relationship. It is a mockery to call anything short of this scientific. I can understand acquiescing quite wholeheartedly in the establishment of one or more typical unions in my shop. I can even picture myself sitting down and planning with their leaders for their establishment. But I am quite sure that if the objects of these unions and more especially their methods were those that I frequently see advocated in organized labor circles I would have an understanding on one of two bases. Either it would be mutually understood that the unions came there on sufferance and because I could not prevent it without making an undue sacrifice, and in spite of my being out of sympathy with their objects and methods, and that I thought the members who paid their dues got almost nothing for their money, *or* we would have such a mutual understanding as would provide for our working out between us a new kind of a labor guild which I would hope would have quite as much cohesiveness as the old, but would give to the members in return for the money and effort expended a larger recompense in the best things of life.

An employer should welcome every possible check on his honesty of purpose, breadth of view and genuine efficiency. The solidarity of the employes is one of those checks which every right-

minded employer should both covet and cultivate. But to advocate in industry a type of labor unionism which prohibits the use of the stop watch and the payment of rewards for high performance is to advocate ultimate industrial slavery—however novel the type. A labor union propaganda which does not provide for constant experimentation and the encouragement of new types of organization is short-sighted and not big and broad enough to hold within itself the germ of a republic both politically and industrially free. Research should be as vitally necessary to the wise solution of the problems of labor as to those in other fields of human endeavor.

The labor movement must inevitably seek a new alignment—along which efficiency will become one of labor's own demands—eventually its cardinal demand. The employer who clings to an antiquated machine or one whose system of management is not of the best will ultimately be as obnoxious to labor as are today those who work long hours and pay low wages. In the Great State production will be made a part of the responsibility of labor. And here is where coöperation comes in. Because, as Taylor has pointed out, you can drive men into working hard but it is impossible to drive them into working efficiently. The friends of labor are sometimes tempted to fear scientific management simply because it is efficient. Formerly the *New Statesman* and sometimes our own *Survey* have viewed it as a chain newly forged about labor's neck. Such an attitude fails to take into account the fact that true Scientific Management is a closely articulated, delicately adjusted mechanism such as is clearly impossible in an atmosphere of dissatisfaction and discord. It cannot be built out of collective bargaining, even though individual and collective consent are inherent in its practise.

RESPONSIBILITIES OF LEADERSHIP

Do not let us put the onus of reform on the already overburdened workers of the world. If men ever learn to work together and live together efficiently and happily it will only be as we develop a new technique for the individual, yes, a new reverence for the individual. But this is only indirectly the problem of the group or the mass or the "mob" if you must call it that. The responsibility for leadership lies first, of course, at the door of the leader. In the development of a true leadership lies the great hope of democracy—

whether it be political or industrial. Only through enlightened leadership can we establish a proper relation of the group or mass to the individual, and the leader is he who points the way and pushes on and gaining one eminence uses it only as the basis from which to climb higher.

We can be reasonably sure that the leadership of the future will be far removed from the military ideal which has stood civilization in good stead to date. Even in military affairs it begins to look as if we would hear less about the martinet and more of the man with genuine knowledge, imagination and enthusiasm. I rather think that for the highest efficiency we have too little instructing and too many instructions in industry and business. We work on the fiction that an instruction once issued is carried out to the letter. As a matter of fact most instructions, especially in the higher and therefore more important reaches of industry, are only imperfectly understood. Then again each worker in the last analysis executes only that part of what he understands to be his instructions, which he feels to be essential. Occasionally he does something because he is afraid not to do it. Now if you make a practise of never issuing orders as such it puts it up to you to keep your man convinced. The result is, your associates in practise actually carry out what has become their own purpose as well as yours. You undoubtedly lose here and there—especially in the matter of military precision. But your gains are infinitely greater than your losses. Notice is given to your associates that you do not mind being shown wherein you are mistaken and do not expect anyone to do the foolish or inefficient or dishonest thing simply because it was your order or he thought it was your order to do it. So commands make way for orders, and orders for instructions and instructions for information for employes. The argument is in no wise weakened even if we admit that this system "has still to establish its mutual disciplines and possess its mind," to borrow a phrase from H. G. Wells. It will become increasingly difficult for concerns operated on anything like a military basis to attract to their employ the best class of employes. Industry and government today can have in them adventure and romance—in fact must include both if they are to be properly conducted. More and more our young men of promise will demand the opportunity to associate themselves with industrial undertakings dominated neither by the anti-efficiency

propaganda of the English labor unions nor by the militaristic know-nothingness of certain types of big business.

QUALITIES NEEDED FOR LEADERSHIP AND COÖPERATION

To analyze the leadership of the future we must recognize in it a twofold quality. We are told that there can be no sound where there is no ear to hear. In some such sense it is true that there can be no leadership if there are none to follow or if none follow gladly. This following is just as important as the leading. To be a leader a man or a woman must first *know*—know what his job is and then have the experience, the ability, the judgment, the enthusiasm and the vision to execute this allotted task. Just that has been enough to "get many a man by" in the past. But the time has gone when it is enough. It will become increasingly necessary for the leader of the future to be able to visualize these facts and capacities to his several constituencies. As the group widens and the interests of the individual deepen this becomes a more and more difficult task but one to which the powers of the truly great will be attracted.

For the followers there is also a twofold duty, for it is upon them in the last analysis under any democratic scheme that even the ablest and most versatile leader must depend. First we of the mass must learn to be discriminating as to our leaders—we must know more and more about the work of government and more and more about the methods and objects of industry. Otherwise we are ever at the mercy of the charlatan. But beyond this there is a second and most important function of the crowd. We must command the means of making our support effectual. It is not enough to recognize the superintendent of our shop or a President of the Republic as a good and efficient man. We must learn how to make these leaders feel our support and to make our associates know of it. If democracy demands leadership to make it efficient then democracy will be a failure unless we can bring about these conditions without which individuality in management becomes unworkable.

Whether we like it or not, the day has gone by when a leader of men can afford to neglect any opportunity of getting himself and his work placed fairly before his public. But he must do more than this. He must in many instances create these opportunities for

visualizing to the mass of the people his activities and those of his associates. There is so much that is distorted and untrue said about anyone doing important work that the mere desire to offset and neutralize this misinformation requires much educational work. The times and the conditions of both government and industry and the needs of society demand even more than this. It is not enough for the officer of a company or the superintendent of a shop to be honest, active and able. He must make his associates know this. He must keep his constituency convinced and with an ample factor of safety. If we are to have coöperation we must have genuine, relentless publicity affecting every relation.

The picture of a frock-coated and portly gentleman sitting solitary and silent behind a roll-top desk in the front office during those rare intervals between meetings at the bank and at the board of trade is no longer our symbol for industrial leadership. We demand more and more frequent points of contact with our leaders, we prefer to be the president's associates rather than his men. The sphinx is increasingly at a disadvantage in comparison with the man who can place his cards on the table. Whether it be for the employer of 5 or 50, 5,000 or 50,000 makes little difference—self-revealment, incessant and studied, but above all true to the facts—has become the great moving force. Science is beginning to illumine all the work of men. Everywhere, even in the humbler daily tasks, she provides an art. Our industrial relations are no longer for the isolated plant only. They are trade-wide, industry-wide, nation-wide, yes world-wide. Into this maze, if men would tread with freedom, love must enter. The dream will never come true through collective bargaining alone.

You—our leaders in government and in industry—take notice! If you force us to it we will run the ship—whether of industry or of state—by group action. But we are eager to coöperate with you, to supplement you where you are weak and to back you up where you are strong—if only you are our men. We, the workers of the world, believe just as genuinely in science as you do. We both have some way to go in understanding the relation of science to industry and in appreciating all that coöperation may involve. But we firmly believe that if the boss will only reveal himself to his men the men will reveal themselves to the boss.

The industry for which we plan must be made dynamic every-

where and all the time. Industry like life itself becomes static when simply reduced to formulae. Our standards must be only the bases for aggressive action. While realizing that science is making possible a measure of good-will heretofore unknown in this field, we must see in the bringing about of industrial order no getting away from the necessity for struggle and the strenuous life. But it must be a strife which will develop rather than hinder the human spirit. Let us seek first an individuality in leadership which shall bring actual responsibility and joy into every grade of work and then the encouragement of group control to the end that the cause of a genuine industrial democracy shall be advanced and production carried to new levels of enthusiasm and accomplishment.

SUGGESTIONS FROM EMPLOYES HELP COMPANY SAVE MONEY

By Edwin A. Hunger,

Eastman Kodak Company.

The Eastman Kodak Company has found that a system by means of which employes can make suggestions for improving its products or manufacturing conditions and get suitable rewards for the ones adopted, is good business—it pays. There is nothing philanthropic and no smack of welfare work about it at all. Not infrequently a suggestion turned in by one of the employes may result in considerable savings to the company.

Then again the thought of "cashing in" on worth while ideas tends to pull the employe out of the usual rut of things. He feels that he, too, is an important cog in the big machine; for, if he were not, his idea would not be used. When he sees his name published in one of the works' bulletins he takes pride in the fact. It means that he will keep his eyes open thereafter and think harder and faster with the idea of turning out more money-paying suggestions. His confreres are similarly affected. They say to themselves: "If so-and-so can produce something that brings a money prize, why can't we?" So it goes. The spirit is contagious, and as a net result the entire force is put on its toes. Everybody racks his mind for new schemes for producing better goods, better processes and better conditions. When such a spirit is put forth, nothing but good can result for the company.

The Eastman Kodak Company is a very large concern and operates five plants in various parts of Rochester. Of course, where plants are separate, as these are, and each is a distinct unit manufacturing certain definite products, it is necessary to adopt methods of factory control and organization suited to the special requirements of each plant. For this reason, the suggestion systems utilized in the various plants differ somewhat from each other.

In the Kodak Park Works, the largest plant of the company, where some 3,000 men and 1,500 women are employed, standard suggestion blanks are placed at convenient points about the plant.

Any employe having a suggestion to make writes out a full description of his idea on the blank, places it in an envelope addressed to the manager's office, and drops it in one of the locked mail boxes, a number of which are installed in different parts of the plant especially for the purpose. If a sketch is necessary to illustrate the employe's idea and he has not the necessary skill to make one, he is permitted to go to the company's drafting room and have a draftsman make a simple sketch for him. A stub is attached to the suggestion blank on which the author makes note of his idea for reference purposes. The number of the suggestion blank is printed on this stub and a separate blank is utilized for each suggestion in order to facilitate handling. If a drawing is attached to the suggestion blank, the number of the blank is written on the drawing.

The suggestions are collected several times daily and sent to the manager's office. Every blank is there stamped with the date on which it was collected. It has been found necessary to do this because on several occasions different employes have made suggestions on the same thing nearly simultaneously, and until the suggestion blanks were stamped, the question of priority could not be determined. As soon as the suggestion blank is stamped, a special blank acknowledging receipt of the suggestion is sent to its author, and a copy with the name of the employe making the suggestion written on it is brought to the attention of the superintendent of the department to which the suggestion applies. He investigates the merits of the idea and returns the suggestion to the manager's office with reasons for approval or rejection as the case may be. If the recommendation for approval by the superintendent is endorsed by the manager, the superintendent is instructed to carry out the suggestion and a report on another special blank is sent to the author of the suggestion, stating that his idea has been adopted. If the suggestion is not adopted, the maker is advised of that fact also, and is told why his idea is rejected.

At the end of each month all the suggestions that have been adopted and put in operation during the month, together with a brief description of the ideas and their advantages, are listed and copies sent to each member of the suggestion committee, which consists of the superintendents of the various departments. A few days later a meeting is held for the purpose of making awards for suggestions handed in during the month. Each suggestion on the

list is taken up by the superintendent who had charge of putting it into practice, the superintendent at the same time giving his idea of the award the suggestion merits. A discussion of the advantages of the suggestion follows and a vote is taken as to the awards to be made and the amounts of each. Suitable lists are then prepared of the successful suggestions and the amount of money for each, for publication in the *Kodak Park Bulletin*. A works' bulletin of this kind is invaluable as a medium for advertising the suggestion system to the employes and arousing them to the advantages of participating in the making of suggestions. Always immediately after lists of awards have been published, the influx of suggestions increases. For the sake of stimulating the employes to get in the suggestion game, awards are made each month. Formerly awards were made only every three months, but it was found that not nearly so much interest was manifested as when the announcements were made more frequently. Like many other good things it needs intensive advertising, and that is where the bulletin serves a very good and useful purpose.

Suggestions are divided into five groups, as follows: (1) improvements in products; (2) reductions in costs; (3) improvements in manufacturing methods; (4) reduction in accident and fire hazards; and (5) conveniences; the minimum award for suggestions in the respective groups being $5, $4, $3, $2 and $1. The purpose of making the minimum awards different is to encourage the employes to give most of their attention to ideas of most value. The amount of money awarded varies according to the estimated value of the suggestion to the company. Sums as high as $1,100 have been awarded to employes for especially good suggestions. Careful records are kept of improved conditions as a result of suggestions adopted, and for all suggestions which bring about greater savings than at first estimated supplementary awards are made. Of course, these supplementary awards come to the employes like windfalls and cannot but create a good feeling between the employe and the company.

It is the practice in some places where the suggestion system is in operation not to allow the foremen to enter suggestions for which they may expect to receive compensation. Wherever feasible foremen at the Kodak Park Works are not excluded from the privileges of the suggestion system, and it is thought that this is a good plan

since some of the very best ideas that have been obtained have come from them—ideas that probably would not have been brought forward had there not been prospect of direct compensation. Suggestions coming from foremen are written on pink slips.

So-called non-participating foremen's prizes are also awarded. These go to foremen of two groups, those having six to twenty-five men under them, and those with more than twenty-five men under them. In each group four prizes are awarded every four months, $25 and $10 being awarded as first and second prizes to the foremen having the greatest number of adopted suggestions coming from men under them and similar prizes going to foremen whose men have turned in suggestions of greatest value. Foremen who compete for these prizes are not allowed to enter suggestions in the usual way, but are permitted to help their men in preparing their suggestions.

If the author of a suggestion is not satisfied with an explanation rejecting his idea, he is allowed to go to the superintendent and discuss his idea even after taking it up with his foreman or assistant foreman. A grievance committee, made up of workmen, also meets periodically for hearing complaints, getting suggestions for improving the system and answering questions.

The number of adopted suggestions in the Kodak Park Plant in 1916 came to 1,000 out of a total of 2,300 handed in. The average number of adopted suggestions runs to between 40 per cent and 45 per cent of the total number of suggestions handed in.

The Camera Works, the next largest plant of the Eastman Kodak Company, employs a somewhat different suggestion system from that used in the Kodak Park Works. Here the organization for handling the suggestions consists of a general chairman, a secretary and five special committees, each of which is made up of three department heads. The suggestions are classed in five groups, as follows, and each group is looked after by one of the special committees: cost reduction, improvement of product, general maintenance, accident prevention and improvement in manufacturing methods.

The blank on which the employe of the Camera Works describes his idea is radically different from that used at the Kodak Park Plant. It is provided with a stub, but the author of the suggestion writes his name on this stub only, which is removed by the secretary before being handed over to the proper committee. In

other words, none of the men on the committee is allowed to know the name of the author of the suggestion on which he passes.

All suggestions are sent to the general manager of the plant, who refers them to the secretary of the suggestion committee for classification and acknowledgment, after which they are referred to the various committees for action. The committees return a separate written report for each suggestion with a definite statement as to whether the suggestion is approved or not, and if not approved stating the reason.

All approved suggestions are referred to the general manager for final approval, and then a note is sent to the author of the suggestion saying that his suggestion has been approved and stating the amount of the award. Awards for suggestions which effect a saving are based on the estimated amount of the saving for one year and after each suggestion has been in effect for a full year, the actual saving for the year is figured and if it exceeds the amount of the estimate a further award is made.

Lists of awards are published in the *Camera Works' Bulletin*. At the end of each year an honor roll is also published which contains names of all employes who have received $25 or more for suggestions for the year. The number of suggestions received in the Camera Works in 1916 was 1,618, out of which 595, or 29 per cent, were adopted. The number of suggestions adopted per 100 employes was 23.

In the other plants of the Eastman Kodak Company modifications of the systems outlined above are employed.

CENTRALIZED LABOR RESPONSIBILITY FROM A LABOR UNION STANDPOINT

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Centralized labor responsibility means the creation of a new department in the management of plants, the function of which shall be the control of recruiting, retention and discharge of the working force. Judged by its title, this article assumes to state the attitude of trade unionism toward this innovation, when in fact trade unionism as yet has no attitude. The thing is too new, and, so far as I know, no contact has yet been established old enough and wide enough to permit or compel consideration and valuation by official trade unionism.

Nor have I had such personal experience with the practical workings of centralized employment departments as would qualify me to speak with the assurance that attends knowledge. What I have to offer, then, is the reaction of one union man to a new theory of management as applied to the human element in industry, and which may or may not be a correct forecast of a collective sentiment which has not even commenced to form.

So regarded, it is not pure presumption on my part to set myself up as a spokesman for organized labor. For thirty-five years I have been a member of the union in my own craft, active in its councils, and interested in everything that pertained to the general labor union movement. I have worked with union men in the shop and worked for them as their representative. What I shall say here expresses my own views, but this long acquaintance with the movement and the people in it may give those views a measure of value as interpreting the probable reaction of others.

Causes of Labor Turnover

In the scale of prices of Typographical Union No. 6, there is a provision that no man shall be paid for less than a day's work even though he is hired for less than a day. In the philosophy underlying this legislation will be found the most prolific of the many causes

which contribute to excessive labor turnover. The workman is regarded as an easily replaceable tool of production whom it is a loss to retain a minute longer than he can be employed at full capacity. Unlike inanimate tools of production, he represents no investment. Hence the tendency to make his term of employment for minutes only, if that suits the convenience of the employer, and the counteracting tendency of the union to set up at least the pitiful limit of one day as a minimum of permanence. Thus studied, this little rule which takes up two lines in the scale book is a brilliant illumination of industrial history. It contrasts the relative values placed on things and men.

One might mention many causes of excessive labor turnover, but if they were analyzed, they would, in the main, finally resolve themselves into that same fundamental one—that workpeople are regarded, not as human beings, but as animated tools of production, which can be temporarily used upon payment of an agreed sum.

Human thought has a way of seeking concrete expression through a personality or a thing rather than by means of an intangible principle. So, when one is asked to name the chief cause of bedevilment in handling labor supply, at once there leaps into mind the figure of the foreman—the living, obvious doer of the harm so clearly recognized. He wields despotic authority, seemingly without check from any power in the heavens above, or in the earth beneath, or in the waters under the earth. Yet he is not selected because he is fit to possess such arbitrary power over a limited number of his fellow-men. He is chargeable with much evil doing on his own account, and occasionally may be credited with humane instincts that make for amelioration. But in reality he is only a pawn, the screen for those who prod him from above. He is permitted despotic power over the detail of who shall work, but he is only a puppet as to the policy which controls the workers. To take from a number of foremen the power now given them, and to centralize that power in a single person, without at the same time entirely transforming the spirit that actuates the mechanism, may abolish some of the grosser evils, but will leave the main cause of excessive labor turnover untouched.

These grosser evils are serious enough. They engender toadyism and bribery on one side, favoritism and oppression on the other. The manhood of men and the chastity of women are frequent offer-

ings at the feet of a little tin god whose favor must be won or his malevolence placated. That is the sort of creature the foreman can be when the employer will not check him and the workpeople cannot. When a union enters upon the scene, flagrant abuse of authority in the matter of discharge may lead either to justice done or an explosion; but motives of choice in hiring are too subtly concealed to admit of effective regulation. Unions have found it necessary to legislate for the punishment of members who use unfair means of obtaining employment, but proof is difficult and prosecutions are rare.

Naturally, because of his great powers, the foreman is a subject of union law making, not in his capacity as an overseer of production, but in his function as the arbiter of employment. Most unions will not permit him to be a member; the International Typographical Union compels him to be one. Yet, because he is the lowest officer in the executive scale the outcome of the legislation is unsatisfactory; he can make trouble, but he cannot allay it. Therefore, so far as existing union laws treat of the foreman in relation to employment, I would expect no objection to their amendment or repeal whenever a new system makes them obsolete.

The influence of seasonal production on labor turnover needs but to be mentioned rather than elaborated on in this short paper. Its causes and possible remedies are far outside of the immediate sphere of the employment manager. A volume would scarcely suffice for the consideration of this one phase of the employment problem. The same may be said of such potent factors as the condition of trade and demand or lack of demand for labor.

Among minor causes of excessive labor turnover is a sort of restlessness which is most frequently manifested by the more competent mechanics. A job may be satisfactory in every respect, quite as good as they are likely to find anywhere, and yet they will leave because they do not want to remain in one shop too long. Perhaps they are themselves unable clearly to define their reasons, but, so well as I am able to interpret the psychology of this desire for change, it rests upon a fear of losing their independence, of getting into a frame of mind wherein they will come to attach disproportionate importance to the retention of a certain job. There is some basis of fact for this idea, for I have known men who have worked in a shop for a long period whose overhanging nightmare is the fear of

losing the job. Long service made them uneasy instead of giving a sense of security.

THE UNION ATTITUDE TOWARD LABOR BUREAUS

Traditional methods of hiring and discharge are so prolific of all-around dissatisfaction that any new method which is based on study of the problem, and can reasonably be expected to improve conditions, will start with a tremendous presumption in its favor. It would be hard to devise a worse system than the one we now have. Opportunity to work is the primal necessity for nearly all of us, and this opportunity we must seek through such means as are available. Even the strongest unions have been able to accomplish little in the way of improvement. Their members are not so entirely at the mercy of caprice or vindictiveness, and are much less subject to unfair competition between seekers for employment than are the unorganized, but they are by no means free of these evil influences.

There comes now a proposal to lift this matter of prime importance out of the slough of neglect in which it has lain, and to give it the dignity and thought which were always its due. The proposal comes from the right quarter—the highest; and its essence is to put it in the right place—the highest. The purchase of human labor is to be considered as carefully as the purchase of equipment and supplies, as carefully as selling and financing. The officer in charge is not to be a mere understrapper, working his sweet will in irresponsible despotism, but one broadly clothed with power and its attendant responsibility. The motive is the best business motive in the world —enlightened selfishness. It has been discovered that former methods are wasteful and relatively unproductive; that judgment in hiring, and a great deal more judgment in keeping employes when hired, is a paying proposition; it breeds dividends both of money and good feeling.

How will union men receive such a proposal? Why, just as all other working-men will receive it. It is a rightful but long delayed tribute to the worth and dignity of labor. It is progress like that which gave labor a place in the cabinet of the President of the United States. It means that in the cabinet of every business chief there is a man who speaks for people, as contrasted with those who speak for things.

Therefore, such a proposal should inevitably and triumphantly

establish itself. But soft! The proposal is good in itself, but let us see how and by whom it is going to be worked out.

Recently I read an article on the work of a woman who is at the head of the employment bureau of a large corporation. It appears that among her desirable qualifications for the position is the ability to smell out agitators, and not the least of her achievements is her notable success in keeping that pestiferous species out of the plant. That illuminating bit of information gave me pause. Remember, I have been asked to say how *union men* would regard centralized labor responsibility. Well, I am a union man and I have an uneasy feeling that I would correspond rather closely to her idea of an agitator. If there were a union of the industry carried on in that shop, I would join it. If there were none, but a movement started to create one, I would be mixed up in it. Very likely I would be the prime mover. If all the justice and sweet reasonableness called for in the prospectus were not on tap, I might rise and say so. I have an ineradicable notion that workpeople are entitled to a voice in the making of wage scales, fixing the length of the workday, and other important incidents affecting employment, and that no amount of kindly welfare work, no benefits of any sort flowing from a benevolent despotism which arrogates to itself entire jurisdiction over such matters, can compensate for the deprivation of this inherent right. Still less so when the despotism is not benevolent.

Now, if that clever lady found out that my brain harbored such pernicious ideas, I would be refused work in that shop. And if other union men were barred for similar reasons, the impression would probably gain ground among them that, so far as they were concerned, the new method was no better than the old. They could enter that shop only by surrendering their right of association. The new idea, so promising in itself, would meet with hostility from union men.

So far as I am aware, departments of labor such as we are considering have not yet been established in industries where the employes are organized. When they are introduced into industries which are unorganized, the question of the attitude of union men will remain an academic one for such industries. When they are brought into industries which are strongly organized, there is little doubt that the managements will take the union into their confidence and endeavor to show it the mutual advantages that will flow

from the new plan. But when such a department is established in an industry where a union exists, but is struggling for a foothold, where it has not yet secured recognition and is conscious that its fate still hangs in the balance, then the new departure will be looked at with suspicion. Its very centralization will be regarded as an additional means of exercising discrimination against union members, and if that discrimination makes itself apparent as in the instance cited, it needs no conjurer to foresee the attitude of that union to that department of labor.

And why not? Here is a promise made to the ear and its fulfillment almost immediately broken to the hope. Union men believe that their interests are mutual, and are best cared for by association and collective action. That is the lesson of their experience. But if this new dispensation, like the old, denies them this right, and demands that they rely on the newly awakened good-will of the employer, both parties being fully aware of the impotence of the individual workman, why should they discard the lesson of their experience?

ACTUAL METHODS OF HANDLING LABOR TURNOVER

In all the literature that has thus far come under my notice relating to centralized labor bureaus, I find a very satisfactory realization of the facts that good pay, fair treatment and an earnest desire to retain, if possible, a person once hired are potent means toward the reduction of labor turnover. Discharge is verily looked upon as a last resort when all efforts to make the worker fit in somewhere have failed. And since the reduction of labor turnover is the avowed object of the new department, these are the natural lines for it to take.

Again let us examine the means whereby these objects are to be accomplished. It is clear that if the labor department is to succeed, it must have some voice—perhaps a controlling voice—in every matter that affects the human equipment of the plant. The employment bureaus described in magazine articles claim such powers, but in my work in the public employment bureau I did not find it so. I recall four such employment managers who told me that they had nothing to do with fixing pay; that they tried to find suitable men, and then sent them up for an interview with the foreman to make the best bargain they could. Except that the applicant had

one more hurdle to jump on his way to a job, I cannot see that these four plants had improved anything in this particular.

But let us get back to this point as it directly affects the union attitude, and we will take the best examples. Our enlightened employment manager has his say in the making of rates. But unions also want a voice on that subject. If the rates offered equal or exceed the scale made by the union, no question can arise. But suppose the rates offered are lower than the union minimum, or so arranged that they may be higher or lower, and the union has not been consulted about them and will not be. We get right back to a familiar bone of contention, and in that case the union attitude to that shop remains unchanged. The fact that the employment manager instead of the foreman announces to the applicant how much he is to be paid for his work has not altered the situation at all.

We now pass on to the adjudication of grievances. Many sincere employers and managers have assured me that they are always willing to hear and adjust the grievances of their workpeople. I do not bring their good faith into question, but I have a fairly thorough knowledge of human nature as it is exhibited in the shop. Shall I tell you the fundamental reason for the existence of the labor leader? It is that the workman may have a spokesman who is economically independent of the employer, and who can therefore meet the latter on equal terms. When the livelihood of the man who speaks for himself or his fellows is dependent on the good-will of the man he faces, it requires courage to accept the mission and still more courage to speak with frankness and contend with determination for the side he represents. Not many employers are spiritually big enough to forget or waive the power they possess; and even though they may be, the man who treats with them has no assurance of it. Hence there is a silent but active intimidating force exerting its tremendous pressure on the workman, and only the exceptional man can disregard its promptings.

The thing takes on a different aspect, however, when an executive officer of the union appears to discuss matters on behalf of the men. Not without reason do employers resent what is termed the "unwarranted interference of outsiders," but the ostensible reason for resentment does not even remotely resemble the true one.

Although the employer himself may be a man of big caliber, able to forego the power of terrorism he possesses, there are under-

lings who are not. Their memories are long, their vindictiveness unbounded. No man can so order his conduct as to entirely avoid giving the colorable opportunity the foreman may be seeking. So in this respect, where the union has no standing, its attitude in each instance will be determined by events. *Ad interim* it will be a case of "show me."

The way discharges are handled in the magazine stories already mentioned is not the way the thing is done in the few plants having employment managers with which I have had some contact. But we will agree that such plants have taken the form of a good thing without the substance. Different unions have their various methods of protecting their members against unjust discharge. Typographical Union No. 6 has worked out an excellent system, whereby questionable discharges are submitted to a mixed tribunal of employers and employes, whose decision is final. The union wins nearly all the cases, thus demonstrating the need of a power of review over the discharging authority. It also shows that when the union has a reasonable opportunity of preserving the rights of its members, it will also use discrimination, and will not press unreasonable claims, or can be effectively checked if it does. Where a union is recognized, its procedures are of course followed.

There can be no question, however, that union men, just like other men, will cordially respond when they see that the management of a plant, upon its own initiative, seeks to do exact justice in this important regard. And though they may be sceptical at first, continued well-doing must convince them of the sincerity of the desire. By the glow of gratification I got in reading about it, I gauge their feelings on seeing it. If employers had always treated their people justly there never would have been any unions. If they learn to do so in the future the need for them may be less urgent. But we won't disband yet.

THE EXTENT OF UNION APPROVAL

Is there anything in the effort to reduce labor turnover which cannot be approved by a broad-minded union man? The answer is, yes; but this requires elucidation. If the desired result is attained, that fact in itself is proof that the people working in that plant are at least sufficiently well treated to be willing to remain. A management enlightened enough to concern itself about the matter,

and more or less successful in accomplishment, deserves its meed of approval.

Suppose the company inaugurates or continues a policy of opposition to organization? Suppose its hostility goes to the length of excluding union men from the shop if they are known to be such, or discharging them if they join? Even then approval should not be withheld, nor would it be. Men may be opponents and yet find ground for mutual respect.

But there are degrees of approval. The broad-minded union man rejoices at any betterment in the condition of those who labor, whether obtained by their own efforts and conceded as their right, or granted as a measure of expediency, perhaps partly as an insurance against organization. But for himself he certainly would resent the espionage, in the form of solicitude for his welfare, which appears to be an invariable component of the systems to which publicity has been given. To be completely accompanied in his goings out and his comings in, his leisure regulated, his amusements selected, his wages apportioned—these are extensions of his employer's contact which he would not submit to himself and cannot approve for others. When he acknowledges both the good intentions and the good results that have flowed from this new conception of management, he has not surrendered his conviction that as a seller of his labor he is entitled to be heard in the determination of the terms upon which it shall be sold; he has not receded from the lesson of his experience that the only way he can make himself heard is by association with his fellows. Nor does he admit that the buyer of his labor bought also a regulatory interest in his life.

Let me pose as that broad-minded union man, which of course is what I have been doing all the time, and quote a part of a letter recently written by me to a prominent manufacturer in the Middle West, a letter that summarizes my position on this point:

> The evident praiseworthy feature of your work is that you are giving serious attention to the question of human relationships in industry. No matter how much I may disagree with your idea that you have found the road to industrial democracy in your shop, or what objections there may be to your methods, recognition is still due of the fact that you are apparently making a conscientious effort. There is a standard of right doing to which you are striving to conform. Neither can it be denied that people working under the conditions you describe are better off than those employed where nothing else is ever considered than how much can be obtained for how little. But when this is conceded, it is not thereby conceded that industrial democracy is established.

You say that your work is not to be confounded with that which is usually called welfare work, yet welfare work is strongly suggested as I read your various addresses. You are still the benevolent despot and nothing more, so far as I can see. Personally I would resent some of the things you say you do. Your employment department would find me out of harmony with the organization, I very much fear, unless I successfully dissembled my real feelings, which would not be good for you or for me. There are lots of people who no doubt accept what you do complacently, since it is done for their benefit. The same kind of people stolidly endure worse treatment, up to the point of desperation, if that is the only way to earn their bread. But the difference between the two kinds of employers is the same as that between the benevolent and the cruel despot.

I believe I have accurately forecasted the union attitude in this regard. I believe also that the union can afford to wait. Liberty is an imperishable desire of the human heart, and will surely assert itself even among the most submissive. That no man is good enough to rule another man without his consent is an industrial as well as a political truth. To impose such rule as a condition precedent to an opportunity to earn the means of life is not consent.

Also I believe that attempts at regulation which intrude themselves into the private life of the workman must inevitably breed hypocrisy and deceit before they finally foment rebellion. If explanations are necessary of certain acts, they will be manufactured; if vouchers of expenditure are required, means will be found to produce them. To guard against such impositions there springs into being a sort of "Third Section," a secret police. To call these agents "advisors" or "investigators" is but to give a euphonious name to an ugly practice.

FAIR DEALING AND SYMPATHY FUNDAMENTAL

I have already referred to certain establishments which have possessed themselves of employment managers and with which the Public Employment Bureau has had business relations. I do not know the methods used nor the extent of the powers delegated, but I have had some glimpses of the results. They were slaughter houses before; they are slaughter houses still. The employment managers have not even succeeded in stabilizing their own jobs. Inside of six months two of them were tumbled off their thrones and themselves became applicants for employment at the bureau. The reasons were obvious. Working conditions were bad in every one of the essentials. People sent to them at their request were not even sure of an interview.

If illustration were needed, these examples prove that mere centralization has no beneficial influence on labor turnover. Any scheme is useless which has not for its basis fair dealing and decent treatment, while even in the absence of a more or less elaborate plan, remarkable results can be attained if they are employed. I worked fifteen years in a composing room where the permanent force was about 100, and it was marvelous how the years rolled by with hardly ever a change unless death made it. A fellow felt as if he were only a newcomer when he had but a beggarly ten years or so behind him. There was no deliberate planning to that end, but the employment manager who could show equivalent results would be in line for a yellow jacket and a peacock's feather.

Then comes the personal equation. The man or woman competent to do this work must of necessity be big—very big. Sympathy with and comprehension of people is the first thing he needs—and the second, and the third. If he has these he is qualified and experience will supply all minor details of expertness; without them he may have every little nicety of technique, but he will accomplish no more than is forced upon people by their necessities. I have a man in mind as I write this.

Speaking generally, it has been thrust upon my notice that the quarters where the question of employment stabilization has received most serious attention are also the quarters where a flaming sword bars the entrance of the union. The occasional individual may come in, but he must be quiet. He is always on sufferance. Very well; so be it. Often enough employers who conduct non-union shops are far above union employers in every humane attribute. Therefore we will acknowledge that which is good, respect them for doing it, and fight them till time ends on the issue of man's right to unite with his fellow-man against the bondage imposed by his individual helplessness. Yea, though we are bound by a silken rope instead of an iron chain, yet will we not endure it. But whenever they shall recognize our vital interest and our equal right in the working out of these momentous things by which our lives are made or marred, then will they always find us ready to meet them. Then will they have turned their faces toward industrial democracy.

THE MECHANISM OF MIND

By Simon N. Patten,
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No problem has of recent years received more attention than that of the origin of mental traits. It is not my thought to review this discussion but rather to find some new method of approach which will carry us nearer the goal than the older views took us. Occasionally advances make such radical reconstruction that a discussion of older views becomes a waste of time. Such a change has been made by Mr. McDougall in his "Social Psychology." A careful use of terms enabled him to take the indefiniteness from the words "instinct" and "emotion" and give them a meaning for which objective marks can be found and objective tests may be applied. To be sure that a given action is natural there must be some specific inherited mechanism by which the act is performed. Our physical heredity is a group of such mechanisms, each of which has some antecedent in the germ cell. No act can therefore fairly be called natural that has no perceived mechanism aroused by specific antecedents, and, when aroused, acts in a specific manner regardless of the events that environ it.

The first test of inheritable traits is that they are the result of some mechanism whose elements lie in the original germ cell. Each instinct, however, is accompanied by a definite feeling. These feelings are our emotions, and with them are contrasted the acquired sentiments. If each instinct has a corresponding emotion, then we have a double check as to what is heritable. There must be some mechanism which results in an instinctive act and an accompanying emotion which arises when the act is performed. We need not decide whether the emotion precedes the instinctive act, or the act the emotion, if we may be sure that each is accompanied by the other, so that the existence of each may be tested by the presence of the other. It suffices to know that we thus have objective tests of what is natural and simple as opposed to the complex and acquired.

Seven elementary relations are found by Mr. McDougall to

meet this test: The instinct of flight and the emotion of fear; the instinct of repulsion and the emotion of disgust; the instinct of curiosity and the emotion of wonder; the instinct of pugnacity and the emotion of anger; the instincts of self-abasement and self-assertion and the emotion of subjection and elation; the paternal instinct and the tender emotion.

It is not my purpose to defend or criticise this list. The interests in it, whether we alter it or leave it as Mr. McDougall states it, is quite as much in what is excluded as in what it includes. Heredity is a powerful agent, but it lacks much of the definiteness we attribute to it. We must seek its complements before we can account for men as we find them.

We usually contrast nature with nurture, and put in nurture all which is not nature. By thus doing we confuse two different fields with mechanisms of a radically different character. To avoid this confusion I shall put in the province of nurture only that pertaining to physical elation or dejection. A truly natural instinct is aroused by specific stimuli, and when aroused, acts in one specific manner. There are no alternatives in the responses to instinctive situations. The impulses of surplus nutrition and deficit nutrition, however, are not the same. The elation of a surplus and the dejection of a deficit direct the current of thought and activity in peculiar ways, each having its own path and goal. This simple contrast and the laws that follow its perception have been overlooked because of a false standard of judging states of surplus and deficit. It is usual to measure the subjective result by the objective presence of a surplus or deficit of food. But a meager diet may yield a surplus of energy, while an overloaded stomach may transform food into toxins. The real test must be the actual transformation of food into energy, and not its quantity. Surplus energy is a physical state from which certain emotions arise, while a deficit of energy creates emotions of an opposing character.

The problem of energy is, however, not wholly determined by the assimilation of food since the lungs have an important function in creating surplus energy. Any bodily defect, on the other hand, or any failure to eject waste products, creates a state of deficit, and thus evoke the emotions that accompany this condition. We all feel these contrasted states, and on them many important emotions depend. To explain their physical antecedents we must first

realize that the normal outlet of energy is in some discharge. What is energy becomes by transformation activity. This may be muscular or sex activity, nervous stimulation, bodily secretions, the ejection of waste products, or similar transformation. Opposed to discharge we find distention, pressure and inflammation as indications that somewhere the bodily functions have failed to act properly. With this failure comes a deficit of energy and its manifestations. Discharge may thus be assumed to be the normal index of surplus energy and some local distention the corresponding index of states of deficit. If one prefers to say that states of deficit are due to the toxins accumulating in obstructed or overused organs, I shall not find fault with the statement. I am not searching for causes, but some measurable index. Although we cannot see the toxin, the results in terms of distention, pressure and inflammation can be observed.

The states of surplus and deficit may thus be measured in discharge and distention. The corresponding emotions are those of elation and depression. When the depression is diffused it is melancholy; when localized it is pain. A diffused elation is joy, and when localized it is called pleasure. Our joy and pleasure indicate the normal transformation of nutriment; melancholy and pain indicate some obstruction to these normal processes, with a resultant distention, pressure and inflammation. The pleasure of eating would cease if there were no discharge of fluids to mix with the food. The pleasure is in the discharge, and not in the contact of food and mouth. Nor is the accompanying muscular activity pleasurable except as there is a discharge of surplus energy through the muscles. In each pleasure some discharge of energy occurs, and to it the pleasure must be attributed. Evolution localizes and intensifies these pleasures, as it does also our pains, making their intensity equal their vital importance. If, however, discharge is pleasurable and its obstruction involves pain, my thesis has value, even if the complex cases need additional facts for their explanation. I am not trying to explain evolution, but the basis on which it rests. Nor is it necessary to show why discharge or distention produce these effects. If the connection is obvious they can rightly be used as the basis for further investigation.

The fundamental discharge is the sex discharge. Reproduction is the primary way in which a surplus is disposed of. In the

lower forms of life cell division is the index of a surplus. As life moves upward the sex act becomes the center of conscious interest, and is the normal outlet for surplus energy. All fundamental surplus emotions thus center about the sex act, and any restriction on it produces disorganizations which affect health, vigor, and even a normal existence. Take from an animal its surplus energy and the sex emotion dies. It gains in strength only in periods of the year when surplus nutrition is available. In winter sex is dead; in spring it becomes dominant. In the case of man the conditions may be more complex, but if properly analyzed they give the same result.

The action of a surplus is simple. It goes out in sex indulgence. A deficit forces a choice. The mind therefore divides actions into the essential and non-essential, and chooses the former. There is always a shrinkage in the presence of a deficit. The chosen part becomes the self; the rejected part becomes the non-self. The self thus shrinks under the pressure of a deficit but by the process becomes clearly defined. The impulse to save the self becomes the primary impulse of beings facing a deficit. Self-motives thus gain the place under the pressure of a deficit that sex impulses obtain when surplus prevails.

The moral in its primary sense is the self-preserving. Self-regard only becomes descried by the moralist when he acquires the concept of a soul. Then to save the soul he sacrifices the self. But he does not do this until he decided that soul preservation is more important than the preservation of body. The new self, the soul, is as dominant in the higher morality as the material self is in the old. Self-preservation and sex indulgence become more clearly opposed; the things most important to personal preservation coerce sex indulgence, while reproduction is at the expense of immediate personal advantage. Thus we have two contrasted forces which are dominant or recessive as external conditions favor the one or the other. The instincts are thwarted, while the nutritive impulses dominate so thoroughly that we mistake them for nature. This makes the contrast of instinct and impulse especially important. An instinct is an inherited bodily mechanism which acts under specific conditions and is accompanied by a specific emotion. An impulse is a tendency to activity not induced by some specific mechanism, but by the nutritive states of the organism. With overflowing energy we manifest one group of impulses; when re-

duced by a deficit we manifest an opposing group of impulses. Nutritive impulses are thus either conservative impulses with the thought of self dominant, or sex impulses through which the race is propagated. All nutritive impulses are offshoots of one or the other of these two. Fear is an active force in augmenting the self impulse, while love and sympathy reinforce the sex impulse. Practically, our natural disposition is banded in two opposing groups of tendencies instead of being unified.

Our mental mechanism is like an insect with no power to coordinate its wings, each being excited to action by the rays of heat that strike it. The movement of each wing thus tends to place the insect where the rays of heat strike the other wing, thus exciting its action and repressing its own. A crude advance results through the alternate action of the two wings. Another illustration is that of an oarsman moving a boat with one oar. By paddling first on one side and then on the other he goes forward, when if he paddled on one side only he would move in a circle. The self and the sex motives counteract each other in some such fashion, and by their alternate dominance a crude progress is insured which neither of them alone could produce. In this struggle self has gradually gained the dominance over sex with the result that our cultural forces are organized in ways that repress sex. This is the strength of Freud's position. Our wishes are sex wishes, however, only in so far as they reflect states of energy and surplus. But all dreams are not sex dreams, for dreams of self-preservation are frequent. When we overeat and digest we dream of love; when digestion goes wrong we have a nightmare. Bad digestion means dreams of demons, lions, bears, or impending disaster. The self is always the loser through some impending woe. This is as elemental a situation and as frequent one in dreams as those where in a glow of energy we seek to gratify our sex impulse. Both are primary nutritive impulses, and out of one or the other all our impulses arise. We cannot say with Freud that sex dominates the self, but we might say with Bentham that we have two masters. These two masters, however, are not, as he thought, pleasure and pain, but sex and self. The one subordinates personal motives to race welfare, while the other conserves the individual at the expense of the race.

We may now return to the contrast made by Mr. McDougall putting instinct and emotion in a definite relation to each other.

Instinct is a part of our nervous inheritance measurable in definite bodily reactions. Emotional states, however, are not due to these mechanisms. Their source is the glands and not the nerves. If this be true, we do not inherit our impulses as we do our nervous reactions. Had we an inherited nervous hierarchy we would be controlled by its reactions. There would also be that unity which philosophers admire. As it is, choice is real even if its antecedents are definite. We can will; we can inhibit; but to do it we must set the gland activity over against the inherited reactions of the nervous system. The nerves reflect past conditions. The glands voice the forces of the present environment.

When we know what the glands cast into the blood we can predict the emotion that results. The orders transmitted by the nerve are not self-created, but come from the dominance of emotions created by the transformations in the blood. The physical basis of consciousness is in blood chemistry, and not in nerve irritation. If this be true, self is not a reaction of some supreme nerve center, but is a flow that changes with the composition of the blood. Self is thus a changing emotion, not a stable control due to the centralization of the nervous system.

I do not mean to argue this contention, but rather to explain the phenomena of self on this basis and at the same time to connect my explanation with that given by the Freudian thinkers who of late have thrown so much light on the inner working of consciousness. It is not difficult to explain the facts of sex on my hypothesis, and this explanation will in the main agree with that of Dr. Freud. But beyond this point we separate. He regards the self as sex which is controlled to its detriment by outside agencies which he calls the censor. To my mind the censor is not external—tradition, morality and the like—but internal in the struggle of the gland and nerve for supremacy, or it may be in the struggle of different glands for supremacy.

This difference in explanation leads up to difference in analysis. If we think of consciousness as a phenomena of nerves many groups of facts remain unexplainable on any known basis. An appeal to mystery is found in all psychologists who base their system on nerves alone. This hidden part becomes psychoanalysis, subconsciousness, a divided self, or any of the dozen schemes in which the psychologists wander as soon as they enter the realm where nervous

reactions no longer explain the facts. Break up this monistic explanation to which psychologists adhere by giving another group of forces their proper place, and an explanation of complex data can be found that does not reach beyond the known facts of science. Dreaming is transformed into knowledge and mystery becomes obvious fact when we seek in the blood the source of the changes which nerve psychology fails to clarify. To make this change demands a new concept of self and a new view of the way in which self-control is exerted. Can a mere flow with no fixed location establish a control such as that which psychologists have sought in a centralized nervous system? If it can, mystery disappears when we go beyond the nerve and see what the gland is doing.

The main issue, therefore, is whether the self is a fixed nervous reaction wrought out by a slowly developing heredity, or whether it is made and remade each moment by our dominant emotions which in turn have their source in present gland activity. Do I change as my glands alter the composition of my blood, or do I change only as heredity alters my central nervous system? This is the problem, and the answer must come by giving some rational explanation of the evolution of the self. How can temporary flows create so stable a character that the results seem to imply an inherited mechanism?

I shall start the discussion of these problems at the point where my reasoning breaks with that of the Freudian school. The kernel of their position is that the organism has certain fundamental impulses or wishes which are censored by external conditions. The organic impulse is thus blocked and thwarted by external restraints, with the result that abnormal reactions are created which tend to disrupt the organic flow which would result in wish fulfilment. The censor and wish are in perpetual conflict, and by this fact the abnormalities of conduct are explained. A familiar illustration of objective restraint on internal impulse is the action of a mother in guarding her child from injury. The child sees a bright flame and stretches out the hand to reach it. The mother checks the movement in time to prevent injury. If this impulse and this checking is repeated often enough the impulse is restrained, not directly by the mother's act, but by the habit formed in the child's mind of stopping before the attainment is effected. A habit is thus in the

end the censor, but its formation is the result of an external restraint of which the mother's care is a good example.

I do not deny these facts nor the conclusion if the purpose is to illustrate the existence of a censor of impulses and one method of its formation. But it is a complex phenomenon that fails to bring out the nature of censorship which we must treat as an evolutionary product and seek for its source. If we take a low type of organism in which there is as yet no centralized control its activity would arise in this way. There would be in some tissue or gland an accumulation of surplus energy with a tendency to transform itself into activity. The transformation of latent energy into activity takes place through some shock received from the external world. The gland or tissue accumulating energy responds to some external stimulus and discharges when thus aroused. This circuit due to a direct interaction between organism and environment may be called *responsive behavior* as activity and external shock are closely related. There would be no self manifested in such behavior, nor any censorship.

In higher organisms where there is both brain and body the behavior is more complex. The shocks of the environment no longer are the direct source of action. The environment arouses brain activity, and brain activity is followed by bodily movement. It is in acts of this kind that a self appears and in which there is an exhibition of will power. The evidence of consciousness is taken as the final authority. We should, however, disregard this evidence and watch the processes active when the brain controls the body. In essence the brain is not different from the body. It is merely one segment of its loosely organized evolutionary predecessor specialized for given ends. It has every power of the original segment but nothing really new. If this be true, the circuit is now a gland activity which becomes emotion and then wish. This is carried over a connecting nerve to some body organ where it excites the same activity that in a lower organism would have come from a direct external stimulus. We have thus a double circuit—gland activity in the brain, followed by a nervous discharge which excites bodily gland activity from which activity results. This is the physical series when acts occur which we regard as willed or induced by conscious desire. Viewed as behavior, however, the desire is only a step in the circuit—a consequence and not a cause.

Volitional behavior differs from responsive behavior not in kind but in complexity. The brain starts bodily activity and also checks it. The fact is not in dispute. The problem is to discover the true antecedent. If there is a circuit, each part of which has some physical manifestation, behavior can be observed and measured. The failure to get an adequate explanation is due to an endeavor to explain all the facts in terms of nervous reactions. When this is done there is always a break somewhere in the explanation with a mystery which permits loose thinking about the sources of action. When, however, emotion is connected with gland activity instead of nervous reactions the series is explainable in physical terms, and the source of the censorship becomes plain. There is in every act a struggle for supremacy between the nerve and the gland, and each in turn gains a partial supremacy. We thus have a dualism of control instead of a nervous hierarchy. Nor is there any such thing as a centrally initiated process. All processes are flows; a perpetually interacting circuit that lasts all through life. The self is a phase of this circuit which originates no more than any other transformation through which the life process goes. Has thought a neural seat, a sub- or a super-conscious abode, or is it a flow that at points rises to self-consciousness? Each view has its presuppositions, its images and its conclusions. Between them we must choose.

But before a choice is made an additional complexity must be noted. This new phenomenon viewed as a conscious product is *delayed response.* Mind becomes more than volition when action is delayed and in the end determined by forces not in the primary circuit by which volitional control is maintained. In conscious terms we think of this new control as memory. The momentary stimuli of today are checked, and their tendencies thwarted by a repetition of the stimuli that acted on the brain yesterday.

This is delayed control viewed as a conscious product. The same thwarting of primary impulses takes place through the action of the imagination in the form of images and ideals. The self now gets, or seems to get, an objective reality. It is no longer a mere product of the primary life currents and becomes a soul endowed with superior attributes. I have no desire to deny these facts, nor shall I try to obliterate the distinctions thus created. We do have a soul; images and ideals gain a control and memory reactions become powerful enough to stay and transform the primary

impulses. This testimony of consciousness we should accept, but at the same time it should be reinterpreted in harmony with functions the body is capable of performing. The physical interpretation of mental life is correct if the conscious facts can be resolved into antecedent gland and nerve and muscular action. The soul is then not a new phenomenon, but a more complex form of underlying interactions. To make this point clear we must determine what physical changes lie back of delayed response. If this can be explained the more complex products losing their mystery become orderly facts.

The difficulty in getting the clue to explanation of delayed response comes from assuming that memory is its most elementary form. The soul thus seems to have a function not mechanically explainable. But if fancy and image making precede memory, the relation of this new series of facts to emotion and gland activity becomes apparent. We think of a child as having a memory when in reality it has only a very weak one, if memory is measured by adult standards. The child, however, fancies and builds images before it remembers actual occurrences with the detail which adults call truth. What it builds is rather beauty than truth, for it injects pleasing elements into its world that do not reflect the actual external contacts. The child gains in memory as it loses in surplus energy. A good memory is a loss of vitality cramping the power of image making. What is so plain in the case of a child is still visible, though obscured, in the case of adults. People with good memories are usually less original, and show indications of defective development. They are static in action and thought, thus showing that they have lost their early plasticity, which in turn indicates a loss of surplus energy.

With this explanation in the background we can gain an insight into the physical processes back of soul phenomena. We have in this another example of gland and nerve action. A new and more complex circuit is formed so that the soul censors the self as the self censors the primary impulses we call sex phenomena. The primary shock that excites activity first becomes imagination, then will, and then bodily action; otherwise stated, first the image, then the will, then the act. The complex is still of gland and nerve, for in image, will and act there are three separate gland flows brought into harmony by connecting nerve reactions. Depress the gland

action in the imagination and we get memory; depress it as will and we get habit; depress it in the body and senility results. The less the gland activity, the more the nervous control and the greater the mechanical control of life. The normal nerve always when excited repeats its former act. It holds the present firmly to the pattern of the past. Every lowering of vitality heightens this nervous control and increases the power of mechanical responses. Gland activity has no pattern. It never repeats itself exactly. Its power is in the blood flow, and any new content of the blood alters its action. When our glands are active our acts are patternless, and hence are not predetermined. We can thus be original even if we are not free. New combinations of emotion arise with each change in the composition of the blood. The image becomes wish, and the wish becomes action. The soul with its imagery controls instead of a mechanical self.

Rational thought is not a logical process but a psychic transformation. The concept that excites the most emotion excludes its opposite. The logically supreme concept is thus the emotionally superior concept. The self in struggle thus dominates through its emotional allies raising the level of consciousness to a point that excludes other motives. It is this tendency that deceives and falsifies. When the level of consciousness is high, thought seems unified, since the conscious emotions are those of struggle. When, however, the level of consciousness is lowered because of the absence of struggle, the old opposition reappears and normal motives reassert themselves. But they now seem not to come from the external world, but to spring from some inner source. A false psychology is thus created to meet this abnormal condition. Data are now attributed to a subconscious origin that really has an external origin from which, however, it has been cut off by epochs of struggle creating so high a threshold of consciousness that they are submerged for a time and then divorced from their origins. They come into consciousness as dreams, because in the dream world the threshold of consciousness is lower than in waking hours. All this must be made clear before the disguises of self and the disruptive force of struggle is apparent. Nor can they in turn be understood without recognizing the ways in which the level of consciouness is raised and lowered by changes in blood pressure. When it rises the details of perception fade and what remains is the symbol of what

disappears. A single element of an original may thus become the symbol of the whole and be the form by which it asserts itself in consciousness.

My thesis can now be restated in a more scientific form. The elements of the mind are instinct and emotion. Instinct is a nervous mechanism that reacts to certain stimuli. These mechanisms are in the body while in consciousness there are certain emotions that arise in connection with the same stimuli. All emotions, however, are not a mechanism in the sense that instincts are mechanisms, but a flow of nutritive energy. They are the product not of nervous mechanisms but of gland activity. While they seem immaterial and unmechanical they are both, if we recognize that antecedent to the emotion there has been a discharge of some fluid into the blood by which the emotion is aroused and the consciousness fixed upon certain objects. If it can be shown that the injection of given fluid into the blood arouses one emotion and represses others, the material antecedent of emotion becomes apparent even if the dissection of the brain shows no nervous mechanism to accomplish the desired end. Believers in the mechanical character of thought have looked in the wrong quarter for a basis of their claim. The seat of our important mechanisms is in the blood and not in the nerve. When this is recognized the road to thought antecedents is open and its mystery solved. The three elements in thought activity are nervous instincts, nutritive discharges which figure in consciousness as emotions, and the trophic action in the brain.

Students of mind as mechanism have also gone wrong in assuming that as mind is superior to body, so mental mechanisms are superior to those of body. What seems more absurd than that a superior result could be obtained from an inferior mechanism? And yet this is the case. The mechanical reactions of the brain are of a low order. The action in one part arouses a reaction in another not by some superior coördinating mechanism, but by a passage of energizing currents through the plastic parts of the brain. Tracks are thus formed along which energy habitually flows. As an adjustive device this method works admirably, but viewed as a mechanism it is of a surprisingly low order. I doubt if the mind has many nervous mechanisms above the level of trophisms, and yet its emotional flows are so effective that the

result is of a higher order than any nervous mechanism could give.

When a man says I can do as I please, I do not contest the fact but the explanation. I admit that there is no material mechanism corresponding to what we call will. The will is not a mechanism, but a discharge. Its antecedents lie in the blood and not in the nerve. To get will I must generate more energy with its accompanying elation until the threshold of consciousness is so elevated that no other outlet remains. Will as action is increased energy and an accompanying emotional exaltation. What we do is not what we want to do, but we want to do what we are doing. A rise in energy makes a wish which grows as the pressure to do the act increases. This is the thought Dr. Freud has emphasized stated as a normal, instead of as an abnormal, phenomena. The censor is wish as well as the censored. They are rival flows of energy directed by the nutritive discharges in the blood.

Another confusion arises as to the mechanism of inhibition. The disciple of self-mastery asserts that he can withstand all these wish or nutritive flows. And he is right. But how does he do it? Is not inhibition as material as action with causes quite as measurable? We can find inhibitory instincts in many quarters and can readily discover how they act when mere bodily functions. They range all the way from nightmare to stage fright, from shamming death to the limping bird suddenly frightened by your presence. In each case there is a flow that stops action. Could a stage-frightened man have his pulse measured the physical nature of the change would become apparent. Could his blood be tested a new content would be discovered. No one doubts the physical origin of these manifestations, and if so, no one should doubt his power to make inhibitions as soon as he learns how to arouse these discharges. He must get the essence of stage fright or nightmare without their antecedents.

Originally these discharges were brought about by their relations to instinct aroused by external contact. The instinct came first, and the emotional flow followed. Now external contact is seldom of the kind to arouse the emotional flow. In their place we have their symbolic representation in consciousness through wishes and fears. They arouse the inhibition that under antecedent conditions came through external contact. It is therefore true that if

I want to inhibit I can inhibit, but I can only do it by starting a gland action that prompts inhibition. My inhibition is thus quite as material as activity. Just as I can make myself angry by thinking of anger, so I can stop action by arousing the wish for inaction. The seeming will, however, in both cases is not cause but effect. Measure the nutritive flows and the thought current could be predicted. Reading other people's thought will become a science when we get measures for every change in the blood.

CAUSES OF "TURNOVER" AMONG COLLEGE FACULTIES

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When we look at the stupendous labor turnover in manufacturing establishments operating under traditional employment systems whose turnover is in some instances as high as 500 per cent a year, it would seem at first sight that an academic turnover of 40 per cent per annum is evidence of much better conditions in educational organizations than exist in industry. When we investigate the subject a little further, however, and reflect that the usual term of employment in colleges is for the academic year, and that all of the precedents and ethics of the profession are against changes during the academic year, we realize that the problem is a somewhat different one. We need also to bear in mind that the instructor in his relation to his students occupies a position analogous to that of a foreman or department head in industry, and that a change in faculty personnel of 40 per cent per annum finds its analogy in a change of foremen and department heads in industry of 40 per cent. The average cost of changing an employe in industry has been determined to range from $50 to $200, the subdivisions of this expense being:

(a) Cost of hiring
(b) Cost of teaching the new workman
(c) Decreased production by the new workman
(d) Work spoiled by the new employe

Cost of Turnover of Instructors Itemized

It has been estimated that if we take into consideration municipal, state and federal appropriations and income from private endowments, as well as the money spent by the student himself, a fair cost for academic training is $1.00 per recitation hour per student. Assuming that the average instructor handles twelve hours of work per week (most schedules being rather above than

below this figure), and that there are twenty-five students in each class, the average instructor would handle 300 student hours per week. Assuming that from thirty-three to thirty-four active weeks of work are done in the academic year, the expenditure from all sources for the instruction by the average instructor would represent a total outlay of approximately $10,000 per annum. If an inexperienced instructor is only half as efficient during his first year as an experienced instructor, and assuming that the experienced instructor has 80 per cent efficiency, the net loss during the first year would be 40 per cent of $10,000 or $4,000 per instructor. In a faculty of 100 instructors with a turnover of 40 per cent per year, the total annual loss would be forty times $4,000 or $160,000 per annum of taxpayers' or parents' money. These figures take into account only the direct loss. The indirect loss is immeasurable since it represents the failure to develop potential economic and social efficiency in the student.

REASONS FOR CHANGE OF EDUCATIONAL WORK

The principal reasons for changing given by various men who have left educational work for other fields are as follows:

1. Insufficient pay
2. Insufficient opportunities for promotion
3. Their educational experience answered its purpose, namely that of a stepping stone
4. Artificial atmosphere
5. Too wide a variety of activities demanded

The reasons given by various department heads as impelling them to encourage men to accept outside positions are as follows:

1. No future for the man in teaching, even though he was competent
2. The man could not get along with students
3. The man could not get along with his associates
4. Poor teacher
5. Unfit for the organization

It is interesting to reflect what improvement in efficiency might be accomplished by approaching the problem in the same manner in which the employment managers have approached that of labor turnover. The employment manager considers:

1. The sources of supply and methods of securing new men
2. Methods of training and developing new men
3. Methods to be adopted to retain all promising men

SOURCES OF SUPPLY OF TEACHERS

With regard to sources of supply for academic teachers these may be enumerated as:

(a) Personal inquiries made by presidents, deans and department heads at educational and professional conventions. Joining various educational and professional associations has been frequently recommended to young instructors with the confidential statement that the conventions of such associations constitute quite an employment exchange. In fact in many of such conventions this by-product is more important than the main occasion, so far as many of the visitors are concerned.

(b) The second source of supply is letters of inquiry, addressed to college professors asking nominations from their acquaintanceship among alumni or instructors, and followed by personal interview.

(c) The third source of supply is advertisement in educational, professional or trade journals, followed by correspondence and interviews.

(d) The fourth source of supply is the teachers' or professional employment agencies.

While the cost of hiring an ordinary laborer in an industrial employment bureau may be as low as 50 cents to $1.00 per man, it is evident that when we calculate the cost of the time, correspondence and traveling expenses of higher officials in educational work in filling a vacancy, the total is apt to run not much below $50 per position to be filled.

METHODS AND STANDARDS OF SELECTION

After having considered the sources of supply, let us consider methods and standards of selection.

Professor H. Wade Hibbard, head of the Department of Mechanical Engineering at the University of Missouri, has listed 209 activities of a professor. He has boiled these down for a member of an engineering faculty to 84, as follows:

Teaching in
  Lecture
  Recitation
  Laboratory
Drafting
Computation
Field Work
Seminary
Examinations on his own work
Class discipline
Friendship with students
Breadth of culture for professor, and its encouragement for student
Research
  For Professor
  For Students
Methods of student study
Student engineering society
Inspection tours
Foreign lecture
Summer positions
Graduate positions
Alumni list
Employment bureau for alumni
Registration
Issuing stores
Issuing apparatus
Laboratory deposits
Control of student activities
City moral cleanliness
New apparatus
  Needs
  Choice
  Markets
  Installation
Regular supplies
Repairs
Repair shop
Inventory
Deterioration
  Out-of-dateness
New library books
Use of library
Catalog library
High school
  Standards
  Curricula
Engineering curricula and progress
Other engineering schools
Relations with the profession
College catalog
College and department circulars
Engineering experiment station
Engineering bulletins
University extension
  By correspondence
  By centers
Summer school
Advertising and public sentiment
Student grades
Grading methods
Electives for engineers
Schedules for classes
Use for rooms
Lighting plans
Supervision of teaching
Improvement of teachers
Employment of new teachers
Acquaintance with foreign teachers
Pedagogical progress
Work in engineering professional societies
Work in educational societies
Writing
Problems of
  Buildings
  Grounds
  Janitors
Power house management
Problems of
  Heating
  Lighting
  Water service
Fire
  Prevention
  Extinguishment
Bookkeeping
Appropriations
Personal typewriting
Hektographing
Lantern operation

Various department heads will lay emphasis in varying stress on certain of these activities, and measure candidates' acceptability by their fitness as they see it in such of these activities as they deem most important. Some of the activities listed require an executive type of mind, some a promotive type, some an accounting type, some an analytical type, some a judicial type, some a generalizing, and some a detailist type of mind. Not only is the range of mental requirements so great that no single individual can meet them, but the temperamental variations are equally wide. Success in some of these activities demands a strong vital temperament; in others a quick, nervous, energetic temperament is required; others require a calm, phlegmatic temperament, and still others a sympathetic, emotional temperament.

Assuming that the candidate's mental equipment and temperament are satisfactory, he must still pass the tests of good build, pleasing address, individual personality, poise, readiness in speech and acceptability as a public speaker. The last named ability may have to vary from capacity for plain straightforward practical talks free from histrionic attempts and artifices so as to meet the demands of audiences composed of practical men in commerce or industry on the one hand, to a highly histrionic type, well versed in all the arts of sophistry to meet the requirements of so-called more cultured audiences.

Finally we must measure well the applicant's ability to develop interest and enthusiasm and to impart information in such a way that it is not merely a filling-in process, but also a drawing-out and developing of the student. This is more a process of prospecting than direct measurement, to apply a geologist's analogy. Still we can assume that when certain other elements exist which we can measure there is a likelihood of teaching ability being present.

As we look over our long list of activities, however, let us bear in mind the scarcity of the all-around man, if he exists at all. So long as our colleges have not adopted the principles of scientific management as they relate to functional control, we can at least apply them departmentally, since in most colleges the department head is the employment manager, his nominations being subject usually only to confirmation by higher officials. In a department numbering say ten men, it would be possible to assign a selection of eight or nine of Mr. Hibbard's functions outside of direct teaching

work to one man, giving each instructor in this way an opportunity to participate in some few of the multitude of extraneous duties which under traditional systems are handled wholly by department heads or other executives. In filling a vacancy we might then emphasize the traits requisite for the successful carrying on of the more limited line of activities.

Unquestionably a more careful selection based upon scientific analysis of the requirements of each position and applying some standards of measurement to candidates would result in a more efficient selection of candidates with a tendency to reduce the annual turnover.

DEVELOPMENT OF AN INSTRUCTION STAFF

Coming next to the question of development of employes, we find in progressive industrial centers and in large industrial corporations educational classes of salesmen, of accountants, of cost clerks, of time study men, of foremen and superintendents, of credit men, of traffic managers, etc., all engaged in studying the most recent literature and best information relating to their fields of work, the employing corporations for the most part meeting the expenses of securing lecturers and teachers for such classes. It would not be distinctly a new feature in educational practice to carry on this sort of training of instructors within the plant, and yet such practice is exceptional rather than the rule, as it should be. Educational traditions it is true prescribe a leave of absence of from one to three years to obtain a Ph.D. degree at some other educational institution, preferably in some foreign country. The financial expenditure involved in this procedure is such that only those who have private incomes, or are willing to suffer extreme privation for a number of years, are able to participate in this kind of development process. If the foremen's meetings or the cost accountants' club can be scheduled during work hours by factories, similar educational activities for the benefit of instructors can be scheduled as a regular procedure of colleges. Such training should aim to develop not only higher technical ability, but should consider the pedagogic methods and ideals of the individual subject, personal efficiency and fitness for the organization. In order to develop department heads, there should be a much wider extension of the practice of exchanging professors, accompanied by an extra stipend to cover the expenses of

travel and change of location. The heads of professional or industrial departments should be encouraged to take a year's leave of absence to work at their profession or in industry for pay with the idea that they would return full of knowledge as to the latest professional and industrial practices.

RETENTION OF INSTRUCTORS

Having considered now the selection and development of instructors, let us consider the matter of retention. In industries and the professions, tabulated income curves show that the capable man's earnings increase steadily up to the age of sixty and even beyond. In college teaching a man usually reaches a professorship somewhere between the age of thirty and forty, and thereafter his income curve remains a horizontal line until his death. It is no wonder therefore that we hear the term "blind alley" applied to the profession of college teaching. The remedy is self-evident. Boards of trustees of colleges should apply the same principles of compensation to their faculties as they would apply in industrial corporations of which they might be directors. Long tenure of office, accompanied by effective results, should be accompanied by periodic increases in salary even after professorial rank has been reached. There are many department heads in colleges who see young men graduating under them whom they have been instrumental in placing not only in their first positions, but later into better positions, earning salaries in from five to ten years after graduation aggregating fifty or one hundred per cent higher than the professor's salary.

I have laid particular stress upon the case of the professor, because the subject of the underpaid instructor and assistant is already well known, while very few persons realize that the professor or department head is also underpaid and that this fact encourages the men of the instructor class to seek other fields. Moreover, increasing demands are being made of the professor for traveling expenses, to attend conventions, to make contributions to a variety of worthy causes and to maintain a social and professional "front." From my knowledge of existing industrial and professional conditions, I should say that as industrial salaries rule at present, no college assistant or instructor should be employed at a starting pay of less than $1,200 for the academic year. In a first-class institution

he should have opportunity for regular annual advancement to a salary of $1,800. As an assistant professor, his salary should be regularly increased for efficient service until it reaches $3,000. In the associate professor's class, the range should be from $3,000 to $4,000. In the full professor's class, the range should be from $4,000 upward, with assured advancement, until the income curves of department heads in educational work are parallel with those of department heads in industry or of professional men of equal accomplishments. If Europe can pay college professors $10,000 a year, why not America?

HANDICAPS TO EFFICIENCY

Thus far I have discussed the question of assured prospects of promotion and adequate pay, which employment managers tell us are essential for retention of desirable employes. These same employment managers tell us also that we must provide agreeable working surroundings and conditions leading toward contentment and happiness. Several prominent industrial employment managers emphasize the importance of according freedom of speech and opinion to all men. The progressive department head in a college will heed this note as a sign of the times and encourage wider participation by all of his men in council which should be held to determine not only matters of policy and methods, but also such as relate to appointments.

Lack of the customary facilities provided in ordinary business and industrial practice for clerical, drafting and stenographic assistance is one of the conditions of academic inefficiency widely prevalent. In this respect, our colleges might well follow the example of corporation schools who do all they can to develop the real educational powers of their teachers by providing them all of the clerical, drafting and stenographic assistance needed. Academic traditions sanction the purchasing of a $200 scientific instrument, used two or three times a year, as a necessity, while the purchase of a dictaphone to increase the efficiency of an instructor twenty per cent would be looked on as an unpardonable luxury.

Another condition affecting the efficiency of instructors is the lack of provisions for private study. A recent book on efficient living claims that the home life of college professors is made far from ideal by the necessity imposed on them of carrying the day's work

into the home and the maintenance of a private study—a sort of a *sanctum sanctorum* in the residence. Even this safe retreat may not exist if the family has happened to grow considerably in number. Rooms should be provided in college buildings in which instructors might secure genuine privacy for study purposes, being entirely free from business routine or interviews during such periods.

This discussion would not be complete without some mention of old age or retirement pensions. It has been argued that although such pensions might be entirely proper for teachers in primary and secondary schools, it would be letting down caste bars to admit that college professors really required such pensions. Andrew Carnegie intimated that while he would take care of certain institutions, he considered it the duty of the states to take care of the matter of pensions in state institutions. There does not seem to be any valid reason why a railway conductor, engineer or fireman should be entitled to an old age pension any more than a college professor.

I have endeavored to list such analogies between industrial and academic conditions relating to turnover as present themselves to a man who has come into academic work after having filled a position as factory superintendent and production manager.

BOOK DEPARTMENT

THE BUSINESS MAN'S LIBRARY

Accounting, Auditing and Cost Keeping

Scovell, Clinton H. *Cost Accounting and Burden Application.* Pp. xiv, 328. Price, $2.00. New York: D. Appleton and Company, 1916.

In some promising books on cost accounting which have appeared, an attempted summary of a great variety of opinion has left the reader at sea as to the opinion held by the writer. Scovell's treatise is clear and definite. On all the crucial points he states his opinion clearly and gives a reason for it. As a text in the classroom it would need amplification and discussion, supplemented by exercises and problems. It will, however, prove valuable for reference and classroom use as well as for the practicing accountant.

Among the controversial subjects which the author treats most fully are the subjects of Interest Charged to Cost, and Unearned Burden. He believes that interest should be charged to cost because this treatment proves useful both from the point of view of managerial policy and price setting. He believes in charging interest both on capital owned and borrowed, but he is not in favor of making separate charges for these two classes of interest. The offsetting credit for the interest charges is an account called Interest Charged to Cost. The rate for such an interest charge is to be set by the reasonable expectation of return from the capital if invested in high grade securities where no manufacturing or trading risk is taken.

The author would probably feel, however, that his chief contribution lies in his treatment of Unearned Burden. He works out a machine rate for all production centers on the basis of their operation for a standard number of hours each year. This standard is worked out on the basis of the experience of the plant. "But with a curtailment of production, resulting in idle equipment not used in production, there will be an accumulation of burden charges which is not charged to the cost of the product. This expense is known as unearned burden and is not properly a part of manufacturing cost, although it must be recognized in the determination of a proper selling price. . . . . Unearned burden, known as a separate total, serves as a true barometer to indicate the effect of the industrial situation outside the shop on the business in question" (p. 176). Mr. Scovell would charge the unearned burden to the profit and loss account but not to the manufacturing account. The author indicates a significance of unearned burden for competitive costs. He has really laid the foundation for a complete and critical statement of competitive costs, but he does not perform this larger task. In the latter part of the book Scovell applies the principles he has developed to the accounting of several industries.

The work at once is both scholarly and practical, and should rank high among the books in this country on the subject.

SPURGEON BELL.

University of Texas.

WEBNER, FRANK E. *Factory Accounting.* Pp. xii, 345. Price, $3.30, ppd. Chicago: La Salle Extension University, 1917.

Frank E. Webner's recent book entitled *Factory Accounting* forms one of the texts on higher accountancy of the La Salle Extension University. As it is generally understood, the primary use to which all of these texts are to be put is correspondence instruction. Perhaps a growing secondary consideration in offering them to the public is that they may supply a need, very real in some quarters, for satisfactory texts for school and collegiate instruction.

As should be the case, to carry out the purpose indicated above, the present volume is better adapted to its primary use, although providing a fairly satisfactory text for classroom use. Mr. Webner's broad experience in the field of practice makes him an authority as to what is needed for preparation for that line of work. Although he has been a frequent lecturer before many of the largest universities in the country, he does not realize, or, realizing, has not fully overcome all of the difficulties encountered when trying to present to students a difficult subject of which they know little from actual experience. However, in an effort to meet this difficulty the author has vitalized the book by an elaborate use of charts and illustrations which should bring home to the student the many intricacies of the subject if not, in all instances, clarifying the difficult points. The present day tendency to visualize everything by means of charts and graphs has led in a few places to a charting of things which do not lend themselves well to that method of presentation and so has cheapened the product. Fortunately, instances of this are not numerous in the present volume.

Mr. Webner's discussion of the human element is very good and calls attention to a subject which needs more attention than it generally receives.

The content of the book is sufficiently indicated by the four main divisions: Organization, Controlling Records, Industrial Classification, and Production Elements.

One acquainted with Mr. Webner's earlier volume, *Factory Costs*, misses in the present volume much of the well thought out and philosophic treatment of the troublesome problem of burden application so ably presented there. The difference in scope and purpose of the two books accounts for its omission from the present volume.

On the whole *Factory Accounting* is an able presentation of the subject of costs, is somewhat broader than the usual treatment, and should prove a satisfactory text for students.

R. B. KESTER.

Columbia University.

BANKING, INVESTMENTS AND FINANCE

MOULTON, HAROLD G. *Principles of Money and Banking.* Pp. xl, 502. Price, $3.00. *Idem. Exercises and Questions for Use with "Principles of Money and Banking."* Pp. xi, 95. Price, 50 cents. Chicago: University of Chicago Press, 1916.

PHILLIPS, CHESTER A. *Readings in Money and Banking.* Pp. 845. Price, $2.10. New York: The Macmillan Company, 1916.

These two books represent a compilation of excerpts from standard texts and selections from current writings on money and banking. Owing to the wealth and vitality of the discussion on finance that has occurred during the past five years, the inclusion of the selections from current articles is perhaps the more valuable feature.

Neither volume pretends to be an exhaustive analysis nor an original treatment of specific phases of monetary and banking problems, but what each lacks in coherence of treatment is more than compensated for by the wide range of pertinent subjects that are covered.

Moulton in his *Principles of Money and Banking* has related a series of selections whose worth is derived rather from their suggestiveness than their unity. The discussion in Part II concerning the nature and functions of banking is well devised.

Phillips' work is handled in a somewhat different fashion. Instead of taking the excerpts and incorporating them into the text as individual units, he correlates and welds together, with the semblance of unity, different articles pertaining to the same subject. Naturally, this enables the student, and all others who are studying the elements of finance, to obtain a clearer and more comprehensive grasp of a particular problem. The chapters on the foreign banking systems are very opportune.

For collateral readings and for suggestive outlines for class work both volumes fill a long-felt need.

THOMAS CONWAY, JR.

University of Pennsylvania.

FOREIGN TRADE AND COMMERCIAL GEOGRAPHY

FILSINGER, ERNEST B. *Exporting to Latin America.* Pp. xiv, 565. Price, $3.00. New York: D. Appleton and Company, 1916.

Exporting to Latin America is one result of the author's long search for trade information to aid the foreign sales of a moderate sized St. Louis shoe factory. Mr. Filsinger's situation was typical of that of many manufacturers who recently have felt the need of a foreign market which might balance the ups and downs of the home trade.

The book gives evidence of exhaustive and systematic study of that flood of trade information steadily pouring in from the United States Consuls throughout the world, portions of which are contained in the daily commerce reports of the United States Department of Commerce and of the more extended reports of

special investigators of the Department of Commerce, as well as current literature on the subject. Added to this is the author's own practical experience and judgment, expressed with no personal note. The whole is admirably edited, the chapter titles and subheadings being practically the questions which every beginner in foreign trade sooner or later will ask, and on which even experienced merchants and manufacturers occasionally require enlightenment.

An especially interesting chapter is that on Export Commission Houses and Agents, for there is much misunderstanding and some controversy over the precise function which these merchandising agencies can perform, what kind of trade can best be developed through them, and what most advantageously by direct foreign sales methods on the manufacturer's part. There are indications of improved understanding between manufacturers and export houses, partly through discussion of their relationship at several national foreign trade conventions. Mr. Filsinger's outline of the function of the export commission house is followed with the chapter on Traveling Salesmen, General and Local Agents, which is of particular interest to manufacturers desiring to market their product by direct representation overseas. This includes suggestions as to obtaining foreign agents by correspondence.

In view of the Administration's advocacy of the Webb Bill, authorizing coöperation among American exporters, the following is of interest to the manufacturers and merchants who desire to coöperate in order to meet more effectively combinations of foreign competitors which are not only permitted, but encouraged, by foreign governments, and to offset the operations of combinations of foreign buyers leagued to depress the prices of American products:

"It has been well established that for certain handlers of allied lines, coöperative effort is the most effective means for obtaining a foothold in Latin-American trade. When a group of such merchants can be brought together on a thoroughly sound basis, their combined efforts often prove successful."

In the event the Webb Bill, which the Senate failed to bring to a vote in the last Congress, is enacted, Mr. Filsinger suggests "how groups may be formed":

"Manufacturers who believe their products can find a demand in Latin America may invite other firms of like opinion to coöperate. In arranging such groups extreme care must be taken not alone in the selection of the lines but also in the arrangements of the expense. It would be unwise for manufacturers of hardware, millinery, leather, paints, and hats to combine. On the other hand coöperation of concerns, all of whose products were sold by hardware stores, would prove logical. Such manufacturers might produce screws, small machinery tools and similar articles. Another group might be formed by the producers of ladies' apparel, underwear, hosiery, trimmings, millinery, et cetera. A third group might include the manufacturers of leather, dressings, findings, and other articles used by shoemakers. Unless the grouping were carefully done, the efforts of the representative would be dissipated, inasmuch as too much time would be lost to interest the principal importers of these various products. On the other hand, when the attention of the buyer had been obtained by the representative of a group of kindred manufacturers, the possibilities of sales would be much greater."

Further useful information is given on the division of business, distribution of expenses, and specialized salesmanship, advertising and "follow-up" methods. Space does not permit even an enumeration of the other phases of this interesting book,—a valuable addition to a quite substantial bibliography developed by the painstaking work of Hough, Aughinbaugh and other students of Latin-American trade problems.

ROBERT H. PATCHIN.

National Foreign Trade Council, New York City.

UNITED STATES FEDERAL COMMISSION. *Report on Coöperation in American Export Trade.* Part I, Pp. xv, 387. Part II, Pp. xxiii, 597. Washington: Government Printing Office, 1916.

This report contains the results of an investigation made by the Federal Trade Commission. It calls attention to the importance of the foreign commerce of the United States and the need of understanding the conditions our exporters must meet in competing for world trade. A special study was made of the effect of foreign combinations, private and government-aided, on the export trade of the United States.

Part I considers at length competitive conditions in international trade, facilities aiding this trade, and how coöperation in particular industries in foreign countries has been developed. Part II consists of consular reports, extracts from hearings of the Commission, and examples of price and export agreements of foreign combinations. The work contains valuable tables and charts.

The Commission has made a thorough and much needed study of conditions in international trade.

W. E. W.

INDUSTRIAL MANAGEMENT

SHAW, A. W. *An Approach to Business Problems.* Pp. xxvi, 332. Price, $2.00. Cambridge: Harvard University Press, 1916.

JONES, EDWARD D. *The Administration of Industrial Enterprises.* Pp. vi, 442. Price, $2.00. New York: Longmans, Green and Company, 1916.

A hasty survey of these two books would give the erroneous impression that they were much alike; both treat the problem of factory equipment, both discuss the formation of an administrative organization, both deal with the process of mercantile distribution. However, the casts of mind, the purposes of the two writers and the arrangement of material are so utterly dissimilar that the resemblance of the two volumes ceases with the tables of contents.

Mr. Shaw was in a philosophical mood when he wrote his book. He searched his mind to discover a universal classification of industry molded on the living activities of business, to find a uniform method of approach to all the diverse forms of industrial problems. Out of the welter of old economic generalizations he endeavored to formulate new ones, reversing the ancient adage, for he poured old wine into new bottles. Mr. Jones, on the other hand, showed scant courtesy to

the philosophy of business, for his mind was too intent upon telling the story of the best existing practices.

The purpose Mr. Shaw had in mind was to make a start toward a science of business, comparable, perhaps, to the science of chemistry; that is, he hoped to isolate from a large number of generalizations concerning business a few that would have the standing of laws, so that, given certain data about a business one might predict certain results. Dr. Jones had no such mighty task; his purpose was to relate simply and clearly the practices in business that experience taught were most beneficial. It is true that Dr. Jones desired to make it unquestionable that scientific method was applicable to business, and also that the concepts of welfare and service had a definite place in industry, but he had no especial intellectual ax to grind.

Unlike Mr. Shaw, Dr. Jones has given us a well organized work. It is a straightforward, connected story. As a textbook, it ought to be well received, and as a part of a business man's library, it should prove an asset.

MALCOLM KEIR.

University of Pennsylvania.

LABOR LEGISLATION

BARNETT, GEORGE E. and MCCABE, DAVID A. *Mediation, Investigation and Arbitration in Industrial Disputes.* Pp. viii, 209. Price, $1.25. New York: D. Appleton and Company, 1916.

This book is intended to offer in condensed, summary form a review of the experiences of the Massachusetts, Ohio and New York State arbitration systems, and the proposals submitted by the authors to the United States Industrial Commission for a State and national system of mediation, investigation and arbitration.

It contains much illustrative matter describing the activities of these three State boards up to 1914. It points out the highly satisfactory and successful results of mediation, the almost entire absence of arbitration outside of the shoe industry in Massachusetts, the growing trend towards investigation of disputes, and the need for a scientific, comprehensive statement of principles to be followed in government settlement of disputes, in order that the experience of the successful States may be generally adopted elsewhere. The systems described are not presented as "cure-alls." Clearly-marked limits, even to mediation, are set forth. The attitude of the authors is impartial and practical, and the treatment of the subject is scholarly. It might be wished that the results of the last three years be included in the book. The appendices contain the Newlands Act and the recommendations of the Industrial Commission on mediation, arbitration, etc.

J. T. Y.

MANUFACTURING INDUSTRY

COMPTON, WILSON. *The Organization of the Lumber Industry.* Pp. x, 153. Price, $2.00. Chicago: *American Lumberman,* 1916.

The author has given us a history of the lumber industry and its organization in the United States. By means of an analysis of *prices,* he has sought a solution

of the economic problems associated with lumber from tree to ultimate user. A rather novel method of employing *relative* prices was made necessary by the character of the source material to which the author had access. One important chapter treats the organization of the lumber industry for production; a second deals with the organization for distribution, while a third has to do with the ownership and prices of standing timber.

A reader becomes somewhat annoyed that an otherwise careful work is impaired by the ineffectiveness of the essential charts. The author frequently tries to show too many things on one chart and forgets to make the cross-square lines of the graph paper. As a consequence, the charts fail to convey the maker's idea and the curves hang unattached in mid-air. In other respects the book is unusually good.

M. K.

COTTER, ARUNDEL. *The Authentic History of The United States Steel Corporation.* Pp. x, 231. Price, $2.00. New York: The Moody Magazine and Book Company, 1916.

This book narrates the principal events preceding and leading up to the incorporation of the greatest industrial enterprise in the world. It also sets forth the objects and policies of the company and the results therefrom upon labor and industry in general. Most of the story is drawn from the testimony in the government suit for the dissolution of the Corporation, but this already published material is supplemented by information obtained personally from the promoters and officers of the Company. Some of the salient features of the book are descriptions of the Tennessee Purchase, the development of export trade, the integration of the Corporation, the artificially created steel towns and the movement for safety, sanitation and welfare within the steel works.

When one takes into consideration that the book is dedicated to Elbert H. Gary and that the author is frankly prejudiced in favor of the Corporation, and when one makes allowances for such freely admitted bias, one finds that there is much in the book that is commendable. It might be unfortunate to give wide circulation to this "authentic" history if it were the only one extant, but as long as one may consult Bridges' *History of the Carnegie Steel Company* for the facts that Cotter left out of his particular work, then it is highly desirable in the interest of fair-mindedness to have a book that gives a plain and interesting statement of the Corporation's side of the case.

The book is admirably illustrated.

M. K.

STATISTICS

DUDLEY, WILLIAM A. *Finance and Life Insurance.* Pp. 227. Price, $5.00. Mexico, Missouri: Missouri Printing and Publishing Company, 1916.

The plan of the book is excellent, but the workmanship is extremely careless. Mr. Dudley's purpose is the brief presentation of the elementary principles of logarithms, interpolation, probability, compound interest and discount, annuities

and life contingencies,—an excellent idea, for where is the business man who, though he has not the time or training to study these topics thoroughly, does not often find need for an elementary knowledge that will enable him to make intelligent use of interest, discount or bond valuation formulae?

His approach to each of these subjects is simple and direct, but his careless and incorrect statement of many formulae makes it a dangerous book for the beginner to use. For instance, on page twenty-five in the chapter on compound interest he transforms the equation $S=(1+i)^n$ to express the value of "*i*" in terms of the other quantities as follows:

$$i=\sqrt[n]{S}-1=\frac{\log S}{n}-1.$$

It is apparent that $\frac{\log^s}{n}-1$ does not equal "i".

What he intends to say is

$$i=\text{antilog}\left[\frac{\log^s}{n}\right]-1.$$

No less than eight errors were found in this particular chapter.

The book contains apparently valuable tables of interest, discount and annuities at interest rates from ¼ to 10 per cent, but errors found elsewhere make one hesitate to depend on the accuracy of these tables.

B. D. M.

TRANSPORTATION

BROWN, HARRY G. *Principles of Commerce.* Pp. xxiii, 207. Price, $1.75. New York: The Macmillan Company, 1916.

Part I analyzes the laws of money and describes in detail the mechanism of foreign exchange. Part II explains the advantages of foreign trade and presents an indictment of protective tariffs and other artificial barriers to the natural development of commerce. Part III contains a discussion of the theory of transportation rates.

T. W. V. M.

DROEGE, JOHN A. *Passenger Terminals and Trains.* Pp. vii, 410. Price, $5.00. New York: McGraw-Hill Book Company, 1916.

This work is a worthy companion to *Freight Terminals and Trains*, by the same author, published in 1912.

Of the many improvements in all branches of the railroad service which have taken place in recent years none has invited wider attention than the improvements of the equipment employed in the transportation of passengers. The huge passenger terminals in the leading large cities, the great number of new stations in smaller cities, the progress of electrification, the introduction of steel cars of varying types with improved methods of heating, lighting and ventilation, are striking testimonials of the efforts of the carriers to provide a higher degree of comfort and convenience for the traveling public. In addition to these more obvious evidences

of progress are countless improvements in the mechanical equipment connected with train operation, and in the organization of the operating service, which help to solve the difficult problem of handling the rapidly growing passenger traffic with speed, promptness and safety.

This volume contains an interesting description of the physical equipment of the passenger service, and tells how it is operated. Because of the extreme diversity of practice in construction the author has found it impossible to describe in detail all the important terminals of the country, but by the judicious selection of certain prominent types for detailed discussion, and by calling attention to the unique features of particular variations, he has succeeded in presenting a remarkably comprehensive picture of the entire passenger service. A special chapter is devoted to the passenger terminals of New York City, and another to the trains and terminals of foreign countries.

Not the least interesting feature of the work is the large number of excellent cuts, charts and diagrams of virtually all the important passenger terminals of the United States.

T. W. VAN METRE.

Columbia University.

NELSON, JOHN H. (Compiled by.) *Interstate Commerce Commission Law.* Pp. 168. Price, $1.00. Washington: John Byrne and Company, 1916.

PHELPS, EDITH M. (Compiled by.) *Selected Articles on the American Merchant Marine.* Pp. xxviii, 218. Price, $1.25. *Idem. Selected Articles on the Government Ownership of Railroads.* (3rd Ed., rev.) Pp. xxxvii, 201. Price, $1.25. White Plains, N. Y.: The H. W. Wilson Company, 1916.

These volumes are two among the many that comprise the *Debaters' Handbook Series.* They contain a brief or outline of both sides of the following resolutions: (1) that the United States should have a government-owned merchant marine, and (2) that the United States should own and operate its interstate railways. Each volume contains a bibliography and a number of selected articles, reports or papers by writers on both sides of the questions at issue.

The volumes do not constitute additions or original contributions to the literature on government ownership. They, however, present reprints of many standard articles and papers in a convenient form, and indicate to the student or debater where more detailed information may be obtained. The bibliographies were carefully selected so as "to give the reader access to the most usable and most easily obtainable material."

This new edition of *Government Ownership of Railroads* contains a number of recently published articles and a fully revised bibliography.

G. G. H.

ECONOMICS

CANNAN, EDWIN. *Wealth: A brief Explanation of the Causes of Economic Welfare* Pp. xxiii, 279. Price, 3s. 6d. London: P. S. King and Son, 1916.

FETTER, FRANK A. *Economics.* (Volume II, *Modern Economic Problems.*) Pp. xi, 498. Price, $1.75. New York: The Century Company, 1916.

The arrangement of this two-volume text on economics is apparently dictated by the present demand in many colleges for a one-semester course in the theory of economics, followed by a possible second semester's work taking up the general applications of the theory. Professor Fetter's second volume meets this existing demand for a text suitable for a continuation course in general economics.

The title, *Modern Economic Problems*, is scarcely adequate to cover the scope of the work. A large part of the book is devoted to a description of existing economic institutions with appropriate historical settings for each. This descriptive matter is valuable for many purposes other than the solution of the particular problems brought forth by the author.

In most instances, the author has succeeded in bringing out the economic laws at work rather than the surface phenomena connected with the problem. While occasional inaccurate statements appear, their number has been reduced to a minimum. The sentiment of the book is thoroughly modern and progressive, but the policies advocated are based upon scientific principles throughout rather than upon the popular reform policies of the hour.

The wisdom of confining references to other works, and bibliographical material in general, to a separate manual, may be questioned. Many readers of the text will, presumably, never see the *Manual* but still will need guidance to further study of those problems in which they are particularly interested.

On the whole, the book may be commended to those seeking scientific instruction rather than propagandist literature.

W. I. K.

GIRAULT, ARTHUR. *The Colonial Tariff Policy of France.* (Edited by Charles Gide.) Pp. viii, 305. Price, $2.50. New York: Oxford University Press, 1916.

Arthur Girault, Professor of Political Economy at the University of Poitiers, presents his careful investigation of the question, "What customs' régime should control the relations between a colony and the colonizing state on the one hand, and foreign countries on the other?" Although the thesis is general in terms, the material deals exclusively with French colonial policy. The author explains that two systems may be followed: one of exclusion, which arouses the jealousy of others and discontent of the colonies, thus doubly compromising the peace of the world, or a liberal policy, that of the open door or tariff personality, which removes from other nations all pretext for jealousy. This is likewise the best way to maintain friendly relations between the colonies and the mother country.

Part I is an investigation of the evolution of the colonial tariff policy of France. In that policy are shown six more or less clearly defined stages in French colonial policy and a chapter is given to each: (1) The ancient régime until 1789 was dominated by the theories of the mercantile system of colonial monopolies, privileged companies and exclusion. (2) The Physiocrats and the Revolution brought liberalism. (3) Under Napoleon the policy of exclusion was restored, but without privileged companies, and lasted until the second Empire. (4) In 1866 under the free trade influence of the Manchester School, colonial tariff autonomy was adopted. (5) The fall in prices and the protective tariff agitation in the eighties ended with the law of January 11th, 1892, which established a customs' union. It regards the colonies as a territorial part of France. This established free trade between France and most of the colonies, but subjected the colonies to the same high tariffs as France in commerce with non-French countries. (6) The recent movement is towards a policy of "tariff personality." Each colony should have its tariff adjusted according to its own peculiarities.

In part II, the results of the colonial tariff policy in France are shown by analyses of the good or bad effects of tariff assimilation *vs.* tariff personality, in the case of each colony. The author concludes that with the exception of Algeria, which under assimilation has actually become a part of France, all the other colonies, especially Indo-China, have been injured by this policy. Tariff assimilation has been a delusion. It has been inflexible. A coat will not fit every man regardless of size and age. The colonies differ from one another and from France. Each must be treated according to its personality, whether the tariff adopted be protectionist or liberal. The development of the sales from the mother country to the colonies depends upon the purchasing power of the colony. If the colony is prosperous its trade will increase in all those commodities which the mother country is able to supply. The colony should be left free to buy and sell all other commodities in the best market.

R. S. MACELWEE.

Columbia University.

JUGLAR, CLEMENT. *A Brief History of Panics* (trans. and ed. by De Courcy W. Thom). Pp. 189. Price, $1.00. New York: G. P. Putnam's Sons, 1916.

A third edition of this standard work is most welcome. The second edition brought the study through the year 1891 and this one brings it down to date. The editor, Mr. De Courcy W. Thom, has himself prepared about one-half of the volume.

E. M. P.

POLITICAL SCIENCE

BARKER, J. ELLIS. *The Foundations of Germany.* Pp. ix, 281. Price, $2.50. New York: E. P. Dutton and Company, 1916.

The present volume is complementary to the author's earlier volume *Modern Germany,* the fifth and enlarged edition of which appeared in 1915. The latter deals exclusively with recent political and economic problems of Germany, while

the volume in hand undertakes to set forth the principles that have guided German statesmanship from the time of the Great Elector down to the present day. Special stress is laid upon the statecraft of Frederick the Great, and numerous quotations are made from his writings to illustrate the political and moral principles of the ruler who bestowed upon Prussia the ideal of a military state. Chapters IX–XIII contain the French text of important state papers in which Frederick's ideas are embodied. In addition to the chapters dealing with the past there is a chapter dealing with the policy of Bismarck and William II, perhaps the most valuable in the book, and chapters dealing with the causes of the war, Germany and Turkey, and the German Colonial Empire. The chapters are for the most part a reprint of articles previously published in English magazines, with the result that they are loosely strung together, they leave many gaps in the narrative, and neither in form nor in substance can they be said to bear out the pretentious claims made for the volume in the preface.

C. G. F.

DAVIS, GEORGE B. *The Elements of International Law.* (4th ed., rev.) Pp. xxiv, 668. Price, $3.00, New York: Harper and Brothers, 1916.

In this edition, there has been no attempt to carry out a thorough-going revision. Few changes have been made in the text, although the first chapter has been rewritten to include a rather extensive list of early writers on international law. The most valuable additions are those in the appendix. There the Declaration of London, which is not mentioned at all in the text, is printed in full, with an introduction and very interesting notes indicating how far its provisions were observed, modified, or disregarded by the belligerents during the first year of the European War. There is also a table showing the signatures, ratifications, adhesions, and reservations to the conventions and declarations of the first and second Hague Conferences. Other new features of the appendix are the text of the United States-Santo Domingo extradition treaty of 1910, and very brief notes regarding the transfer of enemy merchant vessels to a neutral flag, the arming of merchant vessels for defense, the use of aircraft in war, and wireless telegraphy. A list of the most recent collections of treaties and documents and of other important recent works on international law has been added to the original bibliography.

D. G. M.

GIBBONS, HERBERT ADAMS. *The New Map of Africa.* Pp. xiv, 503. Price, $2.00. New York: The Century Company, 1916.

Those who knew Mr. Gibbons' *The New Map of Europe* will welcome this companion volume, which gives a sketch of European colonial expansion and colonial diplomacy for the period 1900–1916. The text is made more easily understandable for the general reader by a well-chosen series of maps.

Several of the chapters have already appeared as articles in magazines. The book makes no pretensions to being documented and does not enter deeply into the many controversial subjects in the field. It is intended to give a popular, understandable first sketch of social and economic conditions in Africa and an

outline picture of the international rivalries in the continent during the first decade and a half of the present century. The author has traveled widely in the lands he describes and has had personal acquaintance with many of the men who have been prominent in their development.

The chapters are to a large extent independent of each other. No attempt is made to treat the subject historically or by a grouping of the various international interests. For him who looks for a well-organized exposition of the cause of developments in Africa, therefore, the volume leaves much to be desired, but for him who seeks a vivid picture of present developments, Mr. Gibbons' description will prove both entertaining and instructive. For those who are already familiar with the chief features of the scramble for Africa, the most valuable portions of the book are those which discuss conditions in the less important and often neglected regions such as the east coast and the Portuguese colonies.

C. L. J.

HOLDICH, SIR THOMAS H. *Political Frontiers and Boundary Making.* Pp. xi, 307. Price, $3.25. New York: The Macmillan Company, 1916.

The most striking feature of this survey of the problems involved in boundary making is the author's comprehensive grasp of geographic and population questions from Patagonia to the Afghan highlands and from ancient Greece to the present day. Covering so wide a field the study cannot be detailed, but what the picture loses in detail it gains in boldness of outline.

Most writers have placed too much emphasis, it is pointed out, upon the ethnographic factors which are to be taken into consideration in marking out national limits. Though race should be considered, more important are the preferences of the inhabitants; and often more important than either is the geographical suitability of a frontier, for after all that frontier is best which holds out the promise that the lands it includes will be easily defensible and hence likely to enjoy freedom from successful attack.

The various sorts of frontiers are then reviewed and criticised. In ancient times the frontier was a strip of neutral or no man's land. The establishment of spheres of interest ripened into spheres of influence. These have always tended to become buffer states or protectorates and finally annexed territories.

Sea, mountain and desert frontiers are declared to be best when they can be used. Less desirable are rivers and still less to be sought those irregular boundaries which depend on "war maps," or on a too scrupulous regard for ethnographic characteristics of the population and the lines established by latitude and longitude.

From these points of view, the boundaries of the various sections of the world are then criticised. The lessons of the present war are constantly in the author's mind. The standards he sets would fail to be satisfactory to both sides in the present war in a number of cases, as rules on which peace should be established. Obviously, as the author points out, there are some regions in which no standard is likely to be productive of international quiet. Most strikingly is that the case in the region which is discussed in the concluding chapter—the Balkans.

CHESTER LLOYD JONES.

University of Wisconsin.

MATHEWS, JOHN M. *Principles of American State Administration.* Pp. xiii, 533. Price, $2.50. New York: D. Appleton and Company, 1917.

This admirable description of the machinery and activity of State administration is the first separate treatment of the subject which has appeared. It sets a high standard for later works in this field. The book is made up of two main parts which describe The Organization of the Administration and the Functions of the Administration respectively. Under Organization there are chapters on the Governor, his powers, the officials of general administration, such as Secretary of State, Attorney-General, etc., the State boards, the civil service. Under Functions the author discusses taxation and finance, education, charities, health, the enforcement of State law, the administration of justice and newer functions.

One of the chief problems in a book dealing with the States is how to avoid a confusing recital of the varying practices of different States. The reader's mind is usually bewildered by the recitation of conflicting details. Dr. Mathews has made a strong and largely successful effort to solve this by selecting a few types of organization and describing these somewhat fully, and by subordinating the variations to footnotes or discarding them altogether. He has used good judgment in his choice of typical systems, usually presenting those which most deserve attention. The author's conclusions as to the modern tendencies in administration are sound and well reasoned. He offers also a goodly number of references for collateral reading and chooses these from works representing different standpoints. The reader is in this way given a broad view of State problems. There is a good concluding chapter on Reorganization.

Dr. Mathews has performed such a distinct service in the preparation of his book, that the reviewer is disposed to offer suggestions only as to a possible change in emphasis or proportion. A single chapter is devoted to Newer Functions of State Administration. These include such important subjects as the supervision of corporations, the administration of labor laws, the promotion of agriculture, etc. To most readers these subjects will be of much greater importance than has been assigned them. In most of the Commonwealths fully 60 per cent of the legislation and administrative activity deals with these subjects. In a later edition of the book, it may be hoped that the author will find room to expand the treatment of these topics, perhaps at the expense of the historical part of his chapters on Taxation and Finance. The book deserves and should find a wide field of usefulness among the colleges and universities.

JAMES T. YOUNG.

University of Pennsylvania.

PHILLIPSON, COLEMAN. *Termination of War and Treaties of Peace.* Pp. xix, 486. Price, $7.00. New York: E. P. Dutton and Company, 1916.

The author of this book is a London barrister and a well-known writer on international law. The outbreak of the present war appears to have greatly stimulated his productivity for he has lately brought out in rapid succession a treatise entitled *International Law and the Great War*, a new edition of Wheaton's *International Law* and the work here reviewed. It is not known to the reviewer whether the present work was intended to serve those who, it is to be hoped, will

soon be engaged actively in the consideration of the problems with which it deals, but it is evident from a perusal of the book that it contains much juridical and historical information that can be utilized by the peace conference whenever it assembles and even by those whose task it may be to take the preliminary steps to bring about peace negotiations. It is impossible within the compass of a brief review to analyze a work of the scope of this one or to signalize in detail its merits and defects. Briefly stated, the author has undertaken to describe the various methods by which wars may be terminated; to state the legal effects of conquest, subjugation and annexation; to discuss the use of good offices and mediation; to expound the *modus operandi* by which peace negotiations are initiated, armistices concluded, peace conferences assembled, treaties concluded, etc.; and to describe their form, nature, contents, the methods by which the fulfillment of treaty speculations is insured, the effect of cession, etc. The whole procedure by which the transition from a state of war to a state of peace is accomplished is described in the minutest detail even to the proper arrangement of the clauses in the treaty and the order in which the signatures shall be attached. The study is historical, comparative and descriptive.

The steps by which the great European Congresses beginning with that of Westphalia were called into existence and the manner in which their procedure was conducted are reviewed in turn. The negotiations by which the principal wars of the nineteenth century were terminated, the terms of the treaties which followed, when and where they were ratified and other similar matters are all described in an interesting manner. The book is unique in that it represents the first attempt to assemble and analyze a large body of historical information which is most timely now that we are soon, it is hoped, to be the witnesses of the most imposing and far-reaching example of peace negotiations which the world has yet seen. Other books have been written on the treaty-making power and on the making and enforcement of treaties, but Mr. Phillipson's is the first to describe in a comprehensive manner the actual procedure that has been employed in the past in negotiating treaties of peace. As such it throws a flood of light on a problem that must soon confront the diplomats and statesmen of Europe.

In addition to the textual matter the book contains some 120 pages of documents consisting in the main of the texts of the great treaties beginning with that of Paris of 1815 and ending with the Turco-Bulgarian treaty of 1913. There is also a fairly good bibliography, an adequate index and a table of the cases cited throughout the text.

JAMES W. GARNER.

University of Illinois.

VALDÉS C., SALUSTIO. *Pan América y el Problema de la Defensa Naval de Chile.* Pp. 56. Valparaiso: Imprenta de la Armada, 1916.

This is an interesting sketch of the military problems which confront Chile and her neighbors. The author discusses the maintenance of the balance of power between the great States of South America, and urges their coöperation for mutual defense.

D. G. M.

SOCIOLOGY

KELSEY, CARL. *The Physical Basis of Society.* Pp. xvi, 406. Price, $2.00. New York: D. Appleton and Company, 1916.

In this book Professor Kelsey has not attempted to say anything new but to bring together a mass of knowledge which has never before been assembled between two covers. To lay a proper foundation for the study of society he sets forth what we know as to the relation between man and his physical environment, the control of nature, the evolution of man, heredity, eugenics, race differences, sex differences, the influence of society upon population, social institutions and the nature of progress. From the writings of the specialists on geography, natural history, biology, ethnography and criminal anthropology, he has gleaned, arranged and intelligently interpreted experiments and observations not easily accessible to the student. The style is clear and interesting, the treatment concrete and summary, the attitude objective and the spirit impartial. The author shows open-mindedness and sound judgment, and, in dealing with controverted matters, takes pains to give the evidence on both sides. He proves himself skilful in guiding the reader through a great body of data often ambiguous or conflicting. The book will be welcomed by teachers of sociology who have felt the need of an introductory text leading up to sociology proper. I can imagine no better use of Professor Kelsey's book than putting the class through it during the first part of a course in general sociology.

E. A. R.

LE BON, GUSTAVE. *The Psychology of the Great War.* (Trans. by E. Andrews.) Pp. 480. Price, $3.00. New York: The Macmillan Company, 1916.

To those who are familiar with the previous writings of the author, the present volume will be something of a disappointment. The keen psychological analysis is present, as in *The Psychology of Revolutions*, but one misses the poise and balanced judgment. It is a splendid example of the influence of war upon even the scholarly mind. The writer is too near the events and too much concerned in the outcome to judge without prejudice. In Books I, V and VII devoted respectively to Psychological Principles Necessary for the Interpretation of the Present War, Psychological Forces Involved in Battles, and Unknown Quantities in Warfare, we find the unbiased analysis of the psychologist, while in Books II, III, IV and VI containing the description of Germany's Evolution in Modern Times, Remote Causes of the War, The Immediate Causes of the War, and Psychological Elements in German Methods of Warfare we find the perfectly natural but partisan reactions of the French nationalist. However much one may sympathize with the feelings of the author, nevertheless in a scientific psychological treatise on the war an analysis of the methods of all the nations involved should certainly be included. In other words, it should not be left to each nation to describe the psychology of the antagonist. It is unfortunate that such a volume as this purports to be, as judged by its title, should not have been deferred until the passions aroused by war had subsided so that a calm and balanced psychological

analysis of the whole conflict, not from the nationalist but from the internationalist point of view, could have been presented.

J. P. L.

MINER, MAUDE E. *Slavery of Prostitution.* Pp. xi, 308. Price, $1.50. New York: The Macmillan Company, 1916.

Those who have known Maude Miner's work as Secretary of the Probation and Protective Association of New York will be especially interested in this summary of her many years' experience in work for delinquent girls. The book is written from a personal rather than from a scientific point of view and for that reason is valuable as a supplement to the various treatises and reports of vice commissions that have been issued on the subject of prostitution. The author shows that prostitution is not an isolated evil that can be abolished by direct methods of attack. She discusses its relation to housing conditions, industrial maladjustment and lack of recreation facilities, as well as to evil companionship and mental defect. It would have been well if she had also discussed the reverse side of the picture—the effect on the community of a policy of toleration. The distress of the individual woman is perhaps over-emphasized, to the exclusion of the more significant social effects of the evil that has enslaved her. The fact that the book is popular in form, free from sordid details, and gives much space to a program of prevention, makes it especially useful for laymen who are interested in modern methods of prevention and correction of delinquency.

H. G.

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THE MEXICAN CONSTITUTION OF 1917

COMPARED WITH

THE CONSTITUTION OF 1857

TRANSLATED AND ARRANGED
BY
H. N. BRANCH, LL.B.

WITH A FOREWORD
BY
L. S. ROWE, PH.D., LL.D.

PHILADELPHIA
THE AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE
1917

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FOREWORD

The widespread interest in Mexican affairs has led the Editorial Council of the Academy to arrange for the early publication of the Mexican Constitution adopted at the recent Constitutional Convention held in Queretaro. In a sense this publication supplements the special volume issued by the Academy in January last on "The Purposes and Ideals of the Mexican Revolution."

Since the first movement for independence from the mother country in 1810, Mexico has passed through an extraordinary constitutional development. The idea of a Republican form of government made its way but slowly amongst the founders of Mexican independence. Between 1810 and 1824 the opinion of the country wavered between a constitutional monarchy and a republic. It is true that the earliest Mexican Constitution—that adopted in Apatzingan by the first Constitutional Convention—provided for a republican form of government with an Executive composed of three persons elected by the National Congress. Amongst the members of this triumvirate, a system of rotation in office was established under which each exercised the powers of Chief Executive during a consecutive period of four months.

This Constitution was regarded as provisional. As soon as the struggle for independence was over, the leaders planned to call another convention for the purposes of effecting the final organization of the country. During the period between 1815 and 1857, the country was torn by internal strife and almost every conceivable form of Constitutional systems was tried, ranging from a republican triumvirate to the imperial system of Iturbide.

The development of Federalism in Mexico stands in marked contrast with the political evolution of the United States. In Mexico, federalism meant the sub-division of what had been, under Spanish rule, a centralized, unified system; in the United States, the establishment of a federal system signified a closer union between separated political units. In spite of the adoption of a federal system by Mexico in 1857, the highly centralized traditions of Spanish rule perpetuated themselves and finally resulted, under

the Diaz administration, in the complete subordination of the individual states to the national government.

The leaders of the revolutionary movement against the Diaz régime were convinced that the Constitution of 1857 had been used by self-seeking politicians for personal ends and that its provisions had contributed toward the domination of the country by a self constituted oligarchy. It is not surprising, therefore, to find radical changes in the Constitution of 1917. The revolutionary leaders, headed by Venustiano Carranza, hold that the avowed purposes of the revolutionary movement, namely to secure for the masses of the Mexican people better economic and social conditions, must be incorporated into the organic law and it is their hope that thereby the country will be protected against a possible reactionary movement. To what extent these hopes will be realized, the future alone can determine.

The Academy is under obligation to Mr. H. N. Branch for his admirable translation of the Constitution of 1917. His painstaking effort has also made it possible for the Academy to place before its members the illuminating comparison between the Constitutions of 1857 and 1917.

L. S. Rowe.

University of Pennsylvania.
May, 1917.

PREFACE

In this translation, the effort has been made to use terms familiar to the English-speaking world, *e.g.*, "House of Representatives," "Attorney General," "impeachment," etc., even though such phrases do not always connote precisely the same thing in the Mexican constitutional system as in that of the United States. Any attempt to coin new and strained English terms would be confusing.

The substantial innovations introduced into the 1917 text are shown in italics, while the important omissions from the 1857 text are set in black face type.

Acknowledgment is made to José Ignacio Rodriguez, ex-Chief Translator and Librarian of the Pan American Union, for his rendering of the 1857 constitution, from which the present version of this document was largely drawn.

H. N. Branch.

The Sorrento, Washington, D. C.
March, 1917

VI

MEXICAN CONSTITUTION OF 1917 COMPARED WITH CONSTITUTION OF 1857

CONSTITUTION OF 1857	*CONSTITUTION OF 1917*
PREAMBLE	
In the name of God and by the authority of the Mexican people.	
The representatives of the different States, of the District and of the Territories which compose the Republic of Mexico, called upon by the provisions of the Plan proclaimed in Ayutla the first of March, eighteen hundred and fifty-four, amended in Acapulco the eleventh day of the same month and year, and by the call issued the seventeenth of October, eighteen hundred and fifty-five, to convene for the purpose of framing a constitution for the nation and making it a popular representative, democratic republic, exercising the powers with which they are vested, do hereby comply with the requirements of their high office, by decreeing the following political Constitution of the Mexican Republic, on the indestructible basis of its legitimate independence, proclaimed the sixteenth of September, eighteen hundred and ten, and consummated the twenty-seventh of September, eighteen hundred and twenty-one.	

1857

TITLE I

SECTION I

Of the Rights of Man

Article 1. The Mexican people recognize that the rights of man are the basis and the object of social institutions. Consequently they declare that all the laws and all the authorities of the country must respect and maintain the guarantees which the present constitution grants.

Art. 2. In the Republic all are born free. Slaves who set foot upon the national territory shall recover, by this act alone, their freedom, and enjoy the protection of the law.

Art. 3. Instruction is free. The law shall determine what professions shall require licenses for their exercise, and what requisites are necessary to obtain said licenses.

Art. 4. Every one is free to engage in any honorable and useful profession, industrial pursuit, or occupation suitable to him, and to avail himself of its products. The exercise of this liberty shall not be hindered except by judicial sentence when

1917

TITLE I

CHAPTER I

Of Personal Guarantees

Article 1. *Every person in the United States of Mexico shall enjoy all guarantees granted by this Constitution; these shall neither be abridged nor suspended except in such cases and under such conditions as are herein provided.*[1]

Art. 2. Slavery is forbidden in the United States of Mexico. Slaves who enter the national territory shall, by this act alone, recover their freedom, and enjoy the protection of the law.

Art. 3. Instruction is free; *that given in public institutions of learning shall be secular. Primary instruction, whether higher or lower, given in private institutions shall likewise be secular.*

No religious corporation nor minister of any religious creed shall establish or direct schools of primary instruction.

Private primary schools may be established only subject to official supervision.

Primary instruction in public institutions shall be gratuitous.

Art. 4. No person shall be prevented from engaging in any profession, industrial *or commercial* pursuit or occupation of his liking, *provided it be lawful.* The exercise of this liberty shall only be forbidden by judicial

[1] *See* Art. 29.

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such exercise infringes the rights of a third party, or by executive order, issued in the manner specified by law, when it offends the rights of society.

Art. 5. No one shall be compelled to render personal services without due compensation and without his full consent, excepting labor imposed as a penalty by judicial decree.

Subject to the conditions set forth in the respective laws, only military service shall be obligatory; and municipal service, service in connection with elections, and jury service shall be obligatory and without compensation.

The State shall not permit any contract, covenant, or agreement to be carried out having for its object the abridgment, loss or irrevocable sacrifice of the liberty of man, whether by reason of labor, education or religious vows.

The law, therefore, does not recognize, nor consent to the establishment of, monastic orders, of whatever denomination or for whatever purpose contemplated. Nor shall any person legally agree to his own proscription or exile. [*As amended, June 10, 1898.*]

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order when the rights of third persons are infringed, or by executive order, issued under the conditions prescribed by law, when the rights of society are violated. No one shall be deprived of the fruit of his labor except by judicial decree.

Each State shall determine by law what professions shall require licenses, the requisites to be complied with in obtaining the same, and the authorities empowered to issue them.

Art. 5. No one shall be compelled to render personal services without due compensation and without his full consent, excepting labor imposed as a penalty by judicial decree, *which shall conform to the provisions of clauses I and II of Article 123.*

Only the following public services shall be obligatory, subject to the conditions set forth in the respective laws: military service, *jury service, service in municipal and other public elective office, whether this election be direct or indirect,* and service in connection with elections, which shall be obligatory and without compensation.

The State shall not permit any contract, covenant or agreement to be carried out having for its object the abridgment, loss or irrevocable sacrifice of the liberty of man, whether by reason of labor, education or religious vows. The law, therefore, does not permit the establishment of monastic orders, of whatever denomination, or for whatever purpose contemplated.

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	Nor shall any person legally agree to his own proscription or exile, *or to the temporary or permanent renunciation of the exercise of any profession or industrial or commercial pursuit.* *A contract for labor shall only be binding to render the services agreed upon for the time fixed by law and shall not exceed one year to the prejudice of the party rendering the service; nor shall it in any case whatsoever embrace the waiver, loss or abridgment of any political or civil right.* *In the event of a breach of such contract on the part of the party pledging himself to render the service, the said party shall only be liable civilly for damages arising from such breach, and in no event shall coercion against his person be employed.*
Art. 6. The expression of ideas shall not be the subject of any judicial or executive investigation, unless it offend good morals, impair the rights of third parties, incite to crime or cause a breach of the peace.	Art. 6. **[Identical]**
Art. 7. Freedom of writing and publishing writings on any subject is inviolable. No law or authority shall have the right to establish censorship, require bond from authors or printers, nor restrict the liberty of the press, which shall be limited only by the respect due to private life, morals, and public peace. Cases of offenses committed through the public press shall be tried by the competent courts of the Union, the States, the	Art. 7. Freedom of writing and publishing writings on any subject is inviolable. No law or authority shall have the right to establish censorship, require bond from authors or printers, nor restrict the liberty of the press, which shall be limited only by the respect due to private life, morals and public peace. *Under no circumstances shall a printing press be sequestrated as the corpus delicti.* The organic laws shall pre-

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Federal District or the Territory of Lower California, according to penal law. [*As amended, May 15, 1883.*]

Art. 8. The right of petition, exercised in writing in a peaceful and respectful manner, is inviolable; but in political matters only citizens of the Republic may exercise it. To every petition an answer shall be given in writing, in the form of a decision, by the official to whom it may have been addressed, and the said official shall be bound to make the petitioner acquainted with the result.

Art. 9. No one shall be deprived of the right peaceably to assemble or to come together for any lawful purpose; but only citizens[2] shall be permitted to exercise this right for the purpose of taking part in the political affairs of the country. No armed assembly shall have the right to deliberate.

[2] *See* Arts. 34 and 35 for definition and prerogatives of citizenship.

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scribe whatever provisions may be necessary to prevent the imprisonment, under pretext of a denunciation of offenses of the press, of the vendors, newsboys, workmen and other employees of the establishment publishing the writing denounced, unless their responsibility be previously established.

Art. 8. Public officials and employees shall respect the exercise of the right of petition, provided it be in writing and in a peaceful and respectful manner; but this right may be exercised in political matters solely by citizens.

To every petition there shall be given an answer in writing by the official to whom it may be addressed, and the said official shall be bound to inform the petitioner of the decision taken *within a brief period.*

Art. 9. The right peaceably to assemble or to come together for any lawful purpose shall not be abridged; but only citizens shall be permitted to exercise this right for the purpose of taking part in the political affairs of the country. No armed assembly shall have the right to deliberate.

No meeting or assembly shall be deemed unlawful, nor may it be dissolved, which shall have for its purpose the petitioning of any authority or the presentation of any protest against any act, provided no insults be proffered against the said authority, nor violence resorted to, nor threats used to intimidate or to compel

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	the said authority to render a favorable decision.
Art. 10. Every one has the right to possess and carry arms for his safety and legitimate defense. The law shall designate what arms are prohibited, and the punishment to be incurred by those who carry them.	Art. 10. The inhabitants of the United States of Mexico are entitled to have arms of any kind in their possession for their protection and legitimate defense, excepting such as are expressly prohibited by law and such as the nation may reserve for the exclusive use of the army, navy and national guard; but they shall not bear such arms within inhabited places, except subject to the police regulations thereof.
Art. 11. Every one has the right to enter and leave the Republic, to travel through its territory and change his residence without necessity of a letter of security, passport, safe conduct or any other similar requirement. The exercise of this right shall be subordinated to the powers of the judiciary, in the event of civil or criminal responsibility, and to those of the executive, in so far as relates to the limitations imposed by law in regard to emigration, immigration, and the public health of the country. [*As amended, November 12, 1908.*]	Art. 11. Every one has the right to enter and leave the Republic, to travel through its territory and change his residence without necessity of a letter of security, passport, safe conduct or any other similar requirement. The exercise of this right shall be subordinated to the powers of the judiciary, in the event of civil or criminal responsibility, and to those of the executive, in so far as relates to the limitations imposed by law in regard to emigration, immigration, and the public health of the country, *or in regard to undesirable foreigners resident in the country.*
Art. 12. No titles of nobility, or prerogatives, or hereditary honors exist in the Republic nor shall they be recognized therein. Only the people, legally represented, may decree recompenses in honor of those who have rendered or may render eminent services to the country or to humanity.	Art. 12. No titles of nobility, prerogatives or hereditary honors shall be granted in the United States of Mexico, *nor shall any effect be given to those granted by other countries.*

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Art. 13. In the Mexican Republic no one shall be tried according to private laws or by special tribunals. No person or corporation shall have privileges nor enjoy emoluments which are not in compensation for a public service and established by law. Military jurisdiction shall be recognized only for the trial of criminal cases having direct connection with military discipline. The law shall clearly define the cases included in this exception.

Art. 14. No retroactive law shall be enacted. No person shall be tried or sentenced except under laws previously enacted, exactly applicable to the case, and by a tribunal previously established by law.

Art. 15. No treaty shall ever be made for the extradition of

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Art. 13. No one shall be tried according to private laws or by special tribunals. No person or corporation shall have privileges nor enjoy emoluments which are not in compensation for public services and established by law. Military jurisdiction shall be recognized for the trial of criminal cases having direct connection with military discipline, *but the military tribunals shall in no case and for no reason extend their jurisdiction over persons not belonging to the army. Whenever a civilian shall be implicated in any military crime or offense, the cause shall be heard by the corresponding civil authorities.*

Art. 14. *No law shall be given retroactive effect to the prejudice of any person whatsoever.*

No person shall be deprived of life, liberty, property, possessions or rights without due process of law instituted before a duly created court, in which the essential elements of procedure are observed and in accordance with previously existing laws.

In criminal cases no penalty shall be imposed by mere analogy or even by a priori evidence, but the penalty shall be decreed by a law in every respect applicable to the crime in question.

In civil suits the final judgment shall be according to the letter or the juridical interpretation of the law; in the absence of the latter, the general legal principles shall govern.

Art. 15. No treaty shall be *authorized* for the extradition

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political offenders, or of offenders of the common class, who have been slaves in the country where the offense was committed; nor shall any agreement or treaty be entered into which abridges or modifies the guarantees and rights which this constitution grants to the individual and to the citizen.

Art. 16. No one shall be molested in his person, family, domicile, papers or possessions, except by virtue of an order in writing of the competent authority, setting forth the legal grounds upon which the measure is taken. In cases *in flagrante delicto* any person may apprehend the offender and his accomplices, placing them without delay at the disposal of the nearest authorities.

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of political offenders, or of offenders of the common class, who have been slaves in the country where the offense was committed. Nor shall any agreement or treaty be entered into which abridges or modifies the guarantees and rights which this constitution grants to the individual and to the citizen.

Art. 16. No one shall be molested in his person, family, domicile, papers or possessions, except by virtue of an order in writing of the competent authority setting forth the legal ground and justification for the action taken. *No order of arrest or detention shall be issued against any person other than by competent judicial authority, nor unless preceded by a charge, accusation or complaint for a specific offense punishable by imprisonment, supported by an affidavit of a credible party or by such other evidence as shall make the guilt of the accused probable;* in cases *in flagrante delicto* any person may arrest the offender and his accomplices, placing them without delay at the disposition of the nearest authorities. *Only in urgent cases instituted by the public attorney without previous complaint or indictment*[3] *and when there is no judicial authority available may the administrative authorities, on their strictest accountability, order the detention of the accused, placing him at the disposition of the judicial authorities. Every search warrant, which may only be issued by the ju-*

[3] *See* note to Art. 21, p. 114.

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	dicial authority and which must be in writing, shall specify the place to be searched, the person or persons to be arrested and the objects sought, to which the proceeding shall be strictly limited; at the conclusion of which, a detailed written statement shall be drawn up in the presence of two witnesses proposed by the occupant of the place to be searched, or, in his absence or refusal, by the official making the search. *Administrative officials may enter private houses solely for the purpose of determining that the sanitary and police regulations have been complied with; they may likewise demand the exhibition of books and documents necessary to prove that the fiscal regulations have been obeyed, subject to the respective laws and to the formalities prescribed for cases of search.*
Art. 17. No one shall be imprisoned for debts of a purely civil character. No one shall resort to violence in the enforcement of his rights. The tribunals shall always be open for the administration of justice, which shall be gratuitous, judicial costs being consequently abolished.	Art. 17. No one shall be imprisoned for debts of a purely civil character. *No one shall take the law into his own hands,* nor resort to violence in the enforcement of his rights. The courts shall be open for the administration of justice *at such times and under such conditions as the law may establish;* their services shall be gratuitous and all judicial costs are accordingly prohibited.
Art. 18. Imprisonment shall take place only for crimes deserving corporal punishment. In any stage of the case in which it shall appear that such a punishment can not be imposed upon the accused, he shall be set at	Art. 18. *Detention* shall be exercised only for offenses meriting corporal punishment. *The place of detention shall be different and completely separated from that set apart for the serving of sentences.* *The Federal and State Govern-*

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liberty on bail.[4] In no case shall the imprisonment or detention be prolonged for failure to pay fees, or any other pecuniary charge.[5]

Art. 19. No detention shall exceed three days, unless justified by a warrant, issued in accordance with law, and giving the grounds for the imprisonment. The mere lapse of this time shall render the authority that orders or consents to it and the agents, ministers, wardens, or jailers who execute it, responsible therefor. Any maltreatment during apprehension or confinement; any molestation inflicted without legal justification; or any exaction or contribution levied in prison, is an abuse which the laws must correct and the authorities severely punish.

[4] Compare Sec. I, Art. 20, of 1917.

[5] Substantially identical with Sec. X, Art. 20, of 1917.

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ments shall organize in their respective territories the penal system—penal colonies or prisons —on the basis of labor as a means of regeneration.[6]

Art. 19. No detention shall exceed three days except for reasons specified in the formal order of commitment, *which shall set forth the offense charged, the substance thereof, the time, place and circumstances of its commission, and the facts disclosed in the preliminary examination; these facts must always be sufficient to establish the corpus delicti and the probable guilt of the accused.* All authorities ordering any detention or consenting thereto, as well as all agents, subordinates, wardens or jailers executing the same, shall be liable for any breach of this provision.

The trial shall take place only for the offense or offenses set forth in the formal order of commitment. If it shall develop in the course of trial that another offense different from that charged has been committed, a separate accusation must be brought. This, however, shall not prevent the joinder of both causes of action, if deemed advisable.

Any maltreatment during apprehension or confinement; any molestation inflicted without legal justification; any exaction or contribution levied in prison are abuses which the law shall correct and the authorities repress.

[6] *See* Art. 5 and Clauses I and II of Art. 123 of 1917.

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Art. 20. In every criminal trial the accused shall enjoy the following guarantees:

I. The grounds of the proceedings and the name of the accuser, if there be such, shall be made known to him.

II. His preliminary examination shall be made within forty-eight hours, to be counted from the time he is placed at the disposition of the judge.

III. He shall be confronted with the witnesses who testify against him.

IV. He shall be furnished with all information of record, which he may need for his defense.

V. He shall be heard in his defense, either personally or by counsel, or by both, as he may desire. In case he shall have no one to defend him, a list of public counsel shall be shown to him, in order that he may choose one or more to act as his counsel.

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Art. 20. In every criminal trial the accused shall enjoy the following guarantees:

I. *He shall be set at liberty on demand and upon giving a bond up to ten thousand pesos, according to his status and the gravity of the offense charged, provided, however, that the said offense shall not be punishable with more than five years' imprisonment; he shall be set at liberty without any further requisite than the placing of the stipulated sum at the disposal of the proper authorities or the giving of an adequate mortgage bond or personal security.*[7]

II. *He may not be forced to be a witness against himself; wherefore denial of access or other means looking towards this end is hereby strictly prohibited.*

III. He shall be publicly notified within forty-eight hours after being turned over to the judicial authorities of the name of his accuser and of the nature of and cause for the accusation, so that he may be familiar with the offense with which he is charged, may reply thereto and make his preliminary statement.

IV. He shall be confronted with the witnesses against him, who shall testify *in his presence if they are to be found in the place where the trial is being held, so that he may cross-examine them in his defense.*

V. *All witnesses which he shall offer shall be heard in his defense, as well as all evidence received, for which he shall be given such time as the law may prescribe;*

[7] *See* note to Art. 18 of 1857.

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	he shall furthermore be assisted in securing the presence of any person or persons whose testimony he may request, provided they are to be found at the place of trial.
	VI. *He shall be entitled to a public trial by a judge or jury of citizens who can read and write and are also citizens of the place and district where the offense shall have been committed, provided the penalty for such offense be greater than one year's imprisonment. The accused shall always be entitled to trial by jury for all offenses committed by means of the press against the public peace or against the safety, domestic or foreign, of the Republic.*
	VII. He shall be furnished with all information of record needed for his defense.
	VIII. *He shall be tried within four months, if charged with an offense the maximum penalty for which does not exceed two years' imprisonment, and within one year, if the maximum penalty be greater.*
	IX. He shall be heard in his own defense, either personally or by counsel, or by both, as he may desire. In case he shall have no one to defend him, a list of official counsel shall be submitted to him in order that he may choose one or more to act in his defense. *If the accused shall not desire to name any counsel for his defense, after having been called upon to do so at the time of his preliminary examination, the court shall appoint counsel to defend him. The accused may name his counsel immediately on arrest and shall*

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	be entitled to have him present at every stage of the trial; but he shall be bound to make him appear as often as required by the court. X. In no event may imprisonment or detention be extended through failure to pay counsel fees or through any other pecuniary charge, by virtue of any civil liability or other similar cause.[8] *Nor shall detention be extended beyond the time set by law as the maximum for the offense charged.* *The period of detention shall be reckoned as a part of the final sentence.*
Art. 21. The imposition of penalties properly so called pertains exclusively to the judiciary. The political or executive authorities shall only have power to impose fines and imprisonment, as disciplinary measures, the former of no more than five hundred dollars, and the latter for no more than one month, in the cases and in the manner which the law shall expressly determine.	Art. 21. The imposition of all penalties is an exclusive attribute of the judiciary. *The prosecution of offenses belongs to the public prosecutor and to the judicial police, who shall be under the immediate command and authority of the public prosecutor. The punishment of violations of municipal and police regulations belongs to the administrative authorities, and shall consist only of a fine or of imprisonment not exceeding thirty-six hours. Should the offender fail to pay the fine this shall be substituted by the corresponding period of arrest, which shall in no case exceed fifteen days.* *Should the offender be a workman or unskilled laborer, he shall not be punished with a fine greater than the amount of his weekly wage or salary.*
Art. 22. Punishments by mutilation and infamy, by branding, flogging, beating with sticks,	Art. 22. Punishments by mutilation and infamy, by branding,

[8] *See* note to Art. 18 of 1857.

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torture of whatever kind, excessive fines, confiscation of property, or any other penalties, unusual or working corruption of the blood, shall be forever prohibited.

Art. 23. Capital punishment is abolished for political offenses; in the case of offenses other than political it shall only be imposed for high treason committed during a foreign war, parricide, murder with malice aforethought, arson, highway robbery, piracy, and grave military offenses. [*As amended, May 14, 1901.*]

Art. 24. No criminal case shall have more than three instances. No person, whether acquitted or convicted, shall be

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flogging, beating with sticks, torture of any kind, excessive fines, confiscation of property and any other penalties, unusual or working corruption of the blood, are prohibited.

Attachment proceedings of the whole or part of the property of any person made under judicial authority to cover any civil liability arising out of the commission of any offense, or by reason of the imposition of any tax or fine, shall not be deemed a confiscation of property.

Capital punishment is likewise forbidden for all political offenses; in the case of offenses other than political it shall only be imposed for high treason committed during a foreign war, parricide, murder with malice aforethought, arson, abduction, highway robbery, piracy, and grave military offenses.

Art. 23. [Identical]

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tried again for the same offense. The practice of discharging in one instance is abolished.	
	Art. 24. *Every one is free to embrace the religion of his choice and to practice all ceremonies, devotions or observances of his respective creed, either in places of public worship or at home, provided they do not constitute an offense punishable by law.* *Every religious act of public worship shall be performed strictly within the places of public worship, which shall be at all times under governmental supervision.*[9]
Art. 25. Sealed correspondence sent through the mails shall be free from search. The violation of this guarantee is an offense which the law will punish **severely.**	Art. 25. Sealed correspondence sent through the mails shall be free from search, and its violation shall be punishable by law.
Art. 26. In time of peace no soldier may demand quarters, supplies, or other real or personal service, without the consent of the owner. In time of war he may do so, but only in the manner prescribed by law.	Art. 26. No member of the army shall in time of peace be quartered in private dwellings, without the consent of the owner; nor shall he demand any other exaction. In time of war the military may demand lodging, equipment, provisions and other assistance, in the manner provided by the corresponding martial law.
Art. 27. Private property shall not be taken **without the consent of the owner,** except for reasons of public utility, indemnification having been made. The law shall determine the authority to make the expropriation and the conditions on which it shall be carried out. No religious corporations and institutions of whatever char-	Art. 27. *The ownership of lands and waters comprised within the limits of the national territory is vested originally in the Nation, which has had, and has, the right to transmit title thereof to private persons, thereby constituting private property.*

[9] Drawn largely from "Leyes de Reforma" of December 14, 1874. *See* note to Art. 130, p. 116.

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acter, denomination, duration or object, nor civil corporations, when under the patronage, direction or administration of the former, or of ministers of any creed shall have legal capacity to acquire title to, or administer, real property, other than the buildings immediately and directly destined to the services or purposes of the said corporations and institutions. Nor shall they have legal capacity to acquire or administer loans made on such real property.

Civil corporations and institutions not comprised within the above provision, may acquire and administer, in addition to the buildings mentioned, real property and loans made on such real property required for their maintenance and purposes, subject to the requisites and limitations to be established by the Federal law to be enacted by the Congress on the subject. [*As amended, May 14, 1901.*]

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Private property shall not be *expropriated* except for reasons of public utility and *by means of* indemnification.

The Nation shall have at all times the right to impose on private property such limitations as the public interest may demand as well as the right to regulate the development of natural resources, which are susceptible of appropriation, in order to conserve them and equitably to distribute the public wealth. For this purpose necessary measures shall be taken to divide large landed estates; to develop small landed holdings; to establish new centers of rural population with such lands and waters as may be indispensable to them; to encourage agriculture and to prevent the destruction of natural resources, and to protect property from damage detrimental to society. Settlements, hamlets situated on private property and communes which lack lands or water or do not possess them in sufficient quantities for their needs shall have the right to be provided with them from the adjoining properties, always having due regard for small landed holdings. Wherefore, all grants of lands made up to the present time under the decree of January 6, 1915, are confirmed.

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Private property acquired for the said purposes shall be considered as taken for public utility.

In the Nation is vested direct ownership of all minerals or substances which in veins, layers, masses, or beds constitute deposits whose nature is different from the components of the land, such as minerals from which metals and metaloids used for industrial purposes are extracted; beds of precious stones, rock salt and salt lakes formed directly by marine waters, products derived from the decomposition of rocks, when their exploitation requires underground work; phosphates which may be used for fertilizers; solid mineral fuels; petroleum and all hydrocarbons—solid, liquid or gaseous.

In the Nation is likewise vested the ownership of the waters of territorial seas to the extent and in the terms fixed by the law of nations; those of lakes and inlets of bays; those of interior lakes of natural formation which are directly connected with flowing waters; those of principal rivers or tributaries from the points at which there is a permanent current of water in their beds to their mouths, whether they flow to the sea or cross two or more States; those of intermittent streams which traverse two or more States in their main body; the waters of rivers, streams, or ravines, when they bound the national territory or that of the States; waters extracted from mines; and the beds and banks of the lakes and streams hereinbefore mentioned, to the extent fixed by law. Any other stream of water not comprised

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	within the foregoing enumeration shall be considered as an integral part of the private property through which it flows; but the development of the waters when they pass from one landed property to another shall be considered of public utility and shall be subject to the provisions prescribed by the States.
	In the cases to which the two foregoing paragraphs refer, the ownership of the Nation is inalienable and may not be lost by prescription; concessions shall be granted by the Federal Government to private parties or civil or commercial corporations organized under the laws of Mexico, only on condition that said resources be regularly developed, and on the further condition that the legal provisions be observed.
	Legal capacity to acquire ownership of lands and waters of the nation shall be governed by the following provisions:
	1. *Only Mexicans by birth or naturalization and Mexican companies have the right to acquire ownership in lands, waters and their appurtenances, or to obtain concessions to develop mines, waters or mineral fuels in the Republic of Mexico. The Nation may grant the same right to foreigners, provided they agree before the Department of Foreign Affairs to be considered Mexicans in respect to such property, and accordingly not to invoke the protection of their Governments in respect to the same, under penalty, in case of breach, of forfeiture to the Nation of property so acquired. Within a zone of*

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100 kilometers from the frontiers, and of 50 kilometers from the sea coast, no foreigner shall under any conditions acquire direct ownership of lands and waters.

II. *The religious institutions known as churches, irrespective of creed, shall in no case have legal capacity to acquire, hold or administer real property or loans made on such real property*[10]*; all such real property or loans as may be at present held by the said religious institutions, either on their own behalf or through third parties, shall vest in the Nation, and any one shall have the right to denounce property so held. Presumptive proof shall be sufficient to declare the denunciation well-founded. Places of public worship are the property of the Nation, as represented by the Federal Government, which shall determine which of them may continue to be devoted to their present purposes. Episcopal residences, rectories, seminaries, orphan asylums or collegiate establishments of religious institutions, convents or any other buildings built or designed for the administration, propaganda, or teaching of the tenets of any religious creed shall forthwith vest, as of full right, directly in the Nation, to be used exclusively for the public services of the Federation or of the States, within their respective jurisdictions. All places of public worship which shall later be erected shall be the property of the Nation.*

III. *Public and private charitable institutions for the sick and needy, for scientific research, or for the diffusion of knowledge, mutual*

[10] Compare second paragraph of Art. 27 of 1857.

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	aid societies or organizations formed for any other lawful purpose shall in no case acquire, hold or administer loans made on real property, unless the mortgage terms do not exceed ten years. In no case shall institutions of this character be under the patronage, direction, administration, charge or supervision of religious corporations or institutions, nor of ministers of any religious creed or of their dependents, even though either the former or the latter shall not be in active service.[11]
	IV. *Commercial stock companies shall not acquire, hold, or administer rural properties. Companies of this nature which may be organized to develop any manufacturing, mining, petroleum or other industry, excepting only agricultural industries, may acquire, hold or administer lands only in an area absolutely necessary for their establishments or adequate to serve the purposes indicated, which the Executive of the Union or of the respective State in each case shall determine.*
	V. *Banks duly organized under the laws governing institutions of credit may make mortgage loans on rural and urban property in accordance with the provisions of the said laws, but they may not own nor administer more real property than that absolutely necessary for their direct purposes; and they may furthermore hold temporarily for the brief term fixed by law such real property*

[11] The second paragraph of the 1857 Constitution and Clauses II and III of the 1917 text are largely drawn from the "Leyes de Reforma." See note to Art. 130, p. 116.

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	as may be judicially adjudicated to them in execution proceedings.
	VI. *Properties held in common by co-owners, hamlets situated on private property, pueblos, tribal congregations and other settlements which, as a matter of fact or law, conserve their communal character, shall have legal capacity to enjoy in common the waters, woods and lands belonging to them, or which may have been or shall be restored to them according to the law of January 6, 1915, until such time as the manner of making the division of the lands shall be determined by law.*
	VII. *Excepting the corporations to which Clauses III, IV, V and VI hereof refer, no other civil corporation may hold or administer on its own behalf real estate or mortgage loans derived therefrom, with the single exception of buildings designed directly and immediately for the purposes of the institution. The States, the Federal District and the Territories, as well as the municipalities throughout the Republic, shall enjoy full legal capacity to acquire and hold all real estate necessary for public services.*
	The Federal and State laws shall determine within their respective jurisdictions those cases in which the occupation of private property shall be considered of public utility; and in accordance with the said laws the administrative authorities shall make the corresponding declaration. The amount fixed as compensation for the expropriated property shall be based on the sum at which the said

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	property shall be valued for fiscal purposes in the catastral or revenue offices, whether this value be that manifested by the owner or merely impliedly accepted by reason of the payment of his taxes on such a basis, to which there shall be added ten per cent. The increased value which the property in question may have acquired through improvements made subsequent to the date of the fixing of the fiscal value shall be the only matter subject to expert opinion and to judicial determination. The same procedure shall be observed in respect to objects whose value is not recorded in the revenue offices.
	All proceedings, findings, decisions and all operations of demarcation, concession, composition, judgment, compromise, alienation, or auction which may have deprived properties held in common by co-owners, hamlets situated on private property, settlements, congregations, tribes and other settlement organizations still existing since the law of June 25, 1856, of the whole or a part of their lands, woods and waters, are declared null and void; all findings, resolutions and operations which may subsequently take place and produce the same effects shall likewise be null and void. Consequently all lands, forests and waters of which the abovementioned settlements may have been deprived shall be restored to them according to the decree of January 6, 1915, which shall remain in force as a constitutional law. In case the adjudication of lands, by way of restitution,

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be not legal in the terms of the said decree, which adjudication have been requested by any of the above entities, those lands shall nevertheless be given to them by way of grant, and they shall in no event fail to receive such as they may need. Only such lands, title to which may have been acquired in the divisions made by virtue of the said law of June 25, 1856, or such as may be held in undisputed ownership for more than ten years are excepted from the provision of nullity, provided their area does not exceed fifty hectares.[11] *Any excess over this area shall be returned to the commune and the owner shall be indemnified. All laws of restitution enacted by virtue of this provision shall be immediately carried into effect by the administrative authorities. Only members of the commune shall have the right to the lands destined to be divided, and the rights to these lands shall be inalienable so long as they remain undivided; the same provision shall govern the right of ownership after the division has been made. The exercise of the rights pertaining to the Nation by virtue of this article shall follow judicial process; but as a part of this process and by order of the proper tribunals, which order shall be issued within the maximum period of one month, the administrative authorities shall proceed without delay to the occupation, administration, auction, or sale of the lands and waters in question, together with all their appurtenances, and in no case may the acts of the said authorities be set*

[11] 1 hectare=2.47 acres.

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	aside until final sentence is handed down.
	During the next constitutional term, the Congress and the State Legislatures shall enact laws, within their respective jurisdictions, for the purpose of carrying out the division of large landed estates, subject to the following conditions:
	(a) In each State and Territory there shall be fixed the maximum area of land which any one individual or legally organized corporation may own.
	(b) The excess of the area thus fixed shall be subdivided by the owner within the period set by the laws of the respective locality; and these subdivisions shall be offered for sale on such conditions as the respective governments shall approve, in accordance with the said laws.
	(c) If the owner shall refuse to make the subdivision, this shall be carried out by the local government, by means of expropriation proceedings.
	(d) The value of the subdivisions shall be paid in annual amounts sufficient to amortize the principal and interest within a period of not less than twenty years, during which the person acquiring them may not alienate them. The rate of interest shall not exceed five per cent per annum.
	(e) The owner shall be bound to receive bonds of a special issue to guarantee the payment of the property expropriated. With this end in view, the Congress shall issue a law authorizing the States to issue bonds to meet their agrarian obligations.

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	(*f*) *The local laws shall govern the extent of the family patrimony, and determine what property shall constitute the same on the basis of its inalienability; it shall not be subject to attachment nor to any charge whatever.* *All contracts and concessions made by former governments from and after the year 1876 which shall have resulted in the monopoly of lands, waters and natural resources of the Nation by a single individual or corporation, are declared subject to revision, and the Executive is authorized to declare those null and void which seriously prejudice the public interest.*
Art. 28. There shall be no private nor governmental monopolies of any kind whatsoever, nor any prohibitions even under cover of protection to industry, excepting only those relating to the coinage of money, the postal service, and the privileges which, for a limited time, the law may concede to inventors or improvers of inventions.	Art. 28. There shall be no private nor governmental monopolies of any kind whatsoever in the United States of Mexico; *nor exemption from taxation;* nor any prohibition even under cover of protection to industry, excepting only those relating to the coinage of money, to the postal, *telegraphic, and radiotelegraphic services, to the issuance of bills by a single banking institution to be controlled by the Federal Government, and to the privileges which for a limited period the law may concede to authors and artists for the reproduction of their work;* and lastly, to those granted inventors or improvers of inventions for the exclusive use of their inventions. *The law will accordingly severely punish and the authorities diligently prosecute any accumulating or cornering by one or more persons of necessaries for the purpose of bringing about a rise in*

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	price; any act or measure which shall stifle or endeavor to stifle free competition in any production, industry, trade or public service; any agreement or combination of any kind entered into by producers, manufacturers, merchants, common carriers or other public or quasi-public service, to stifle competition and to compel the consumer to pay exorbitant prices; and in general whatever constitutes an unfair and exclusive advantage in favor of one or more specified person or persons to the detriment of the public in general or of any special class of society.
	Associations of labor organized to protect their own interests shall not be deemed a monopoly. Nor shall coöperative associations or unions of producers be deemed monopolies when, in defense of their own interests or of the general public, they sell directly in foreign markets national or industrial products which are the principal source of wealth of the region in which they are produced, provided they be not necessaries, and provided further that such associations be under the supervision or protection of the Federal Government or of that of the States, and provided further that authorization be in each case obtained from the respective legislative bodies. These legislative bodies may, either on their own initiative or on the recommendation of the executive, revoke, whenever the public interest shall so demand, the authorization granted for the establishment of the associations in question.

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Art. 29. In cases of invasion, grave disturbance of the public peace, or any other emergency which may place society in grave danger, the President of the Republic, and no one else, shall have the power to suspend, with the advice of the council of ministers and with the approval of the Congress, and, in the recess thereof, of the Permanent Committee, the guarantees granted by this Constitution **excepting those ensuring the life of man;** but such suspension shall in no case be confined in its effects to a particular individual, but shall be made by means of a general decree, and only for a limited time.

If the suspension occur while the Congress is in session, this body shall grant such powers as in its judgment the executive may need to meet the situation; if the suspension occur while the Congress is in recess, the Permanent Committee shall forthwith convoke the Congress for the granting of such powers.

SECTION II

Of Mexicans

Art. 30. Mexicans are:

I. All persons born, within or without the Republic, of Mexican parents.

II. Aliens naturalized in conformity with the laws of the Federation.

III. Aliens who acquire real estate in the Republic, or have Mexican children, if they do not

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Art. 29. In cases of invasion, grave disturbance of the public peace, or any other emergency which may place society in grave danger or conflict, the President of the Republic of Mexico, and no one else, with the concurrence of the council of ministers, and with the approval of the Congress, or if the latter shall be in recess, of the Permanent Committee, shall have power to suspend throughout the whole Republic or in any portion thereof, *such guarantees as shall be a hindrance in meeting the situation promptly and readily;* but such suspension shall in no case be confined to a particular individual, but shall be made by means of a general decree and only for a limited period. If the suspension occur while the Congress is in session, this body shall grant such powers as in its judgment the executive may need to meet the situation; if the suspension occur while the Congress is in recess, the Congress shall be convoked forthwith for the granting of such powers.

CHAPTER II

Of Mexicans

Art. 30.[12] *A Mexican shall be such either by birth or by naturalization.*

I. *Mexicans by birth are those born of Mexican parents, within or without the Republic, provided*

[12] Several of the provisions of this article follow the Naturalization Law of May 28, 1886, while others are a radical departure in the juridical theories hitherto accepted in Mexico.

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declare their intention to retain their nationality.	*in the latter case the parents be also Mexicans by birth. Persons born within the Republic of foreign parentage shall likewise be considered Mexicans by birth, who within one year after they come of age shall declare to the Department of Foreign Affairs that they elect Mexican citizenship, and who shall furthermore prove to the said Department that they have resided within the country during the six years immediately prior to the said declaration.* II. *Mexicans by naturalization are:* (a) *The children of foreign parentage born in the country, who shall elect Mexican citizenship in the manner prescribed in the foregoing clause, and in whom the residence qualification required in the said section does not concur.* (b) *Those persons who shall have resided in the country for five consecutive years, have an honest means of livelihood and shall have obtained naturalization from the said Department of Foreign Affairs.* (c) *Those of mixed Indian and Latin descent who may have established residence in the Republic, and shall have manifested their intention to acquire Mexican citizenship.* *In the cases stipulated in these sections, the law shall determine the manner of proving the requisites therein demanded.*
Art. 31. It shall be the duty of every Mexican: I. To defend the independence, the territory, the honor, the rights and interests of his country.	Art. 31. It shall be the duty of every Mexican: I. *To compel the attendance at either private or public schools of their children or wards, when*

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II. To serve in the army or the national guard pursuant to the respective organic laws. [*As amended, June 10, 1898.*]	*under fifteen years of age, in order that they may receive primary instruction and military training for such periods as the law of public instruction in each State shall determine.*
III. To contribute in the proportional and equitable manner provided by law, toward the public expenses of the Federation, the State and the municipality in which he resides.	II. *To attend on such days and at such hours as the town council shall in each case prescribe, to receive such civic instruction and military training as shall fit them to exercise their civic rights, shall make them skillful in the handling of arms and familiar with military discipline.*
	III. *To enlist* and serve in the national guard, pursuant to the respective organic law for the purpose of preserving and defending the independence, territory, honor, rights and interests of the country, as well as domestic peace and order.
	IV. To contribute in the proportional and equitable manner provided by law toward the public expenses of the Federation, the State and the municipality in which he resides.
Art. 32. Mexicans shall be preferred under equal circumstances to foreigners for all public employments, offices, or commissions, when citizenship is not indispensable. Laws shall be enacted to improve the condition of industrious Mexicans, by rewarding those who distinguish themselves in any science or art, to foster labor, and to found colleges and manual training schools.	Art. 32. Mexicans shall be preferred under equal circumstances to foreigners *for all kinds of concessions* and for all public employments, offices or commissions, when citizenship is not indispensable. *No foreigner shall serve in the army nor in the police corps nor in any other department of public safety during times of peace.*
	Only Mexicans by birth may belong to the national navy, or fill any office or commission therein. The same requisite shall be required for captains, pilots, mas-

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	ters and chief engineers of Mexican merchant ships, as well as for two-thirds of the members of the crew.
SECTION III *Of Aliens*	CHAPTER III *Of Aliens*
Art. 33. Aliens are those who do not possess the qualifications prescribed by Article 30. They shall be entitled to the guarantees granted by Section I, Title I, of the present Constitution, except that in all cases the Government has the right to expel undesirable foreigners. They are under obligation to contribute to the public expenses as the law may provide, and to obey and respect the institutions, laws, and authorities of the country, subjecting themselves to the decisions and sentences of the tribunals, and shall not be entitled to seek other redress than that which the laws concede to Mexicans.	Art. 33. Aliens are those who do not possess the qualifications prescribed by Article 30. They shall be entitled to the guarantees granted by Chapter I, Title I, of the present Constitution; but the *Executive* shall have the *exclusive* right to expel from the Republic forthwith, and without judicial process, *any foreigner whose presence he may deem inexpedient.* *No foreigner shall meddle in any way whatsoever in the political affairs of the country.*
SECTION IV *Of Mexican Citizens*	CHAPTER IV *Of Mexican Citizens*
Art. 34. Mexican citizenship shall be enjoyed only by those Mexicans who have the following qualifications: I. Are over 21 years of age, if unmarried, and over 18, if married. II. Have an honest means of livelihood.	Art. 34. **[Identical]**
Art. 35. The prerogatives of citizens are: I. To vote at popular elections. II. To be eligible for any elec-	Art. 35. **[Identical]**

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tive office and be qualified for any other office or commission, provided they have the other qualifications required by law. III. To assemble for the purpose of discussing the political affairs of the country. IV. To serve in the army or national guard for the defense of the Republic and its institutions, as by law determined. [*As amended June 10, 1898.*] V. To exercise the right of petition in any matter whatever.	
Art. 36. It shall be the duty of every Mexican citizen: I. To register in the polls of the municipality in which he lives, setting forth the property which he owns, if any, or the industry, profession, or labor by which he subsists. II. To enlist in the national guard. III. To vote at popular elections in the district to which he belongs. IV. To fill the elective federal offices to which he may be chosen, and which in no case shall be gratuitous.	Art. 36. It shall be the duty of every Mexican citizen: I. To register in the polls of the municipality, setting forth any property he may own and his professional or industrial pursuit, or occupation; *and also to register in the electoral registration lists, as by law determined.* II. To enlist in the national guard. III. To vote at popular elections in the electoral district to which he belongs. IV. To fill the elective Federal *or State* offices to which he may be chosen, which service shall in no case be gratuitous. V. *To serve on the town council of the municipality wherein he resides and to perform all electoral and jury service.*
Art. 37. Citizenship shall be lost: I. By naturalization in a foreign country. II. By officially serving the government of another country or accepting its decorations, titles, or employment without	Art. 37. Citizenship shall be lost: I. By naturalization in a foreign country. II. By officially serving the government of another country, or accepting its decorations, titles or employment without

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previous permission of the Federal Congress, excepting literary, scientific, and humanitarian titles, which may be accepted freely.	previous permission of the Federal Congress, excepting literary, scientific and humanitarian titles which may be accepted freely. III. *By compromising themselves in any way before ministers of any religious creed or before any other person not to observe the present Constitution, or the laws arising thereunder.*
Art. 38. The law shall determine the cases and the form in which the rights of citizenship may be lost or suspended, and the manner in which they may be regained.	Art. 38. *The rights or prerogatives of citizenship shall be suspended for the following reasons:* I. *Through failure to comply, without sufficient cause, with any of the obligations imposed by Article 36. This suspension shall last for one year and shall be in addition to any other penalties prescribed by law for the same offense.* II. *Through being subjected to criminal prosecution for an offense punishable with imprisonment, such suspension to be reckoned from the date of the formal order of commitment.* III. *Throughout the term of imprisonment.* IV. *Through vagrancy or habitual drunkenness, declared in the manner provided by law.* V. *Through being a fugitive from justice, the suspension to be reckoned from the date of the order of arrest until the prescription of the criminal action.* VI. *Through any final sentence which shall decree as a penalty such suspension.* The law shall determine the cases in which civic rights may be lost or suspended and the manner in which they may be regained.

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TITLE II	TITLE II
SECTION I	CHAPTER I
Of the National Sovereignty and Form of Government	*Of the National Sovereignty and Form of Government*
Art. 39. The national sovereignty is vested essentially and originally in the people. All public power emanates from the people, and is instituted for their benefit. The people have at all times the inalienable right to alter or modify the form of their government.	Art. 39. **[Identical]**
Art. 40. It is the will of the Mexican people to constitute themselves into a democratic, federal, representative republic, consisting of States, free and sovereign in all that concerns their internal affairs, but united in a federation according to the principles of this fundamental law.	Art. 40. **[Identical]**
Art. 41. The people exercise their sovereignty through the federal powers in the matters belonging to the Union, and through those of the States in the matters relating to the internal administration of the latter. This power shall be exercised in the manner respectively established by the Constitutions, both Federal and State. The constitutions of the States shall in no case contravene the stipulations of the Federal constitution.	Art. 41. **[Identical]**

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SECTION II

Of the Integral Parts of the Federation and the National Territory

Art. 42. The national territory comprises the integral parts of the Federation and the adjacent islands in both oceans.

Art. 43. The integral parts of the Federation are: the States of Aguascalientes, Campeche, Coahuila, Colima, Chiapas, Chihuahua, Durango, Guanajuato, Guerrero, Hidalgo, Jalisco, México, Michoacán, Morelos, Nuevo León, Oaxaca, Puebla, Querétaro, San Luis Potosí, Sinaloa, Sonora, Tabasco, Tamaulipas, Tlaxcala, Valle de México, Vera Cruz, Yucatán, Zacatecas, the Territory of Lower California, the Territory of Tepic, formed from the seventh canton of Jalisco, and the Territory of Quintana Roo. The Territory of Quintana Roo shall be formed by the eastern portion of the Peninsula of Yucatán; it shall be bounded by a line which, drawn from the northern coast of the Gulf of Mexico, follows the arc of the meridian 87° 32′ (Longitude West of Greenwich) to its intersection with parallel 21°, and thence till it meets the parallel passing through the Southern Tower of Chemax, twenty kilometers to the east of this town; and reaching the vertex of the angle formed by the boundaries between the States of Yucatán and Campeche, near Put, goes southward to the parallel dividing the Republics of Mexico and Guatemala. [*As amended November 24, 1902.*]

Art. 44. The States of Aguascalientes, Chiapas, Chihuahua, Durango, Guerrero, México, Puebla, Querétaro, Sinaloa, Sonora, Tamaulipas, and the Territory of Lower California shall preserve the limits which they now have.

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CHAPTER II

Of the Integral Parts of the Federation and the National Territory

Art. 42. The national territory comprises the integral parts of the Federation and the adjacent islands in both oceans. *It likewise comprises the Island of Guadalupe, those of Revillagigedo, and that of "La Pasión," situated in the Pacific Ocean.*

Art. 43. The integral parts of the Federation are: The States of Aguascalientes, Campeche, Coahuila, Colima, Chiapas, Chihuahua, Durango, Guanajuato, Guerrero, Hidalgo, Jalisco, México, Michoacán, Morelos, *Nayarit*[13], Nuevo León, Oaxaca, Puebla, Querétaro, San Luis Potosí, Sinaloa, Sonora, Tabasco, Tamaulipas, Tlaxcala, Vera Cruz, Yucatán, Zacatecas, the Federal District, the Territory of Lower California, and the Territory of Quintana Roo.

Art. 44. The Federal District shall embrace its present territory; in the event of the removal of the Federal Powers to some other place it shall be created into the State of the Valley of Mexico, with such boundaries and area as the Federal Congress shall assign to it.[14]

[13] *See* Art. 47 of 1917.

[14] Substantially identical with Art. 46 of 1857.

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Art. 45. The States of Colima and Tlaxcala shall preserve in their new character of States the limits which they had as Territories of the Federation.

Art. 46. The State of the Valley of Mexico shall consist of the territory constituting at present the Federal District, but it shall not be a State until after the Supreme Federal Powers move to some other place.

Art. 47. The State of Nuevo León and Coahuila shall comprise the territory formerly belonging to the two separate States of which it now consists, except a part of the Bonanza Hacienda, which shall be added to Zacatecas, exactly as it was before its annexation to Coahuila.

Art. 48. The States of Guanajuato, Jalisco, Michoacán, Oaxaca, San Luis Potosí, Tabasco, Vera Cruz, Yucatán, and Zacatecas shall recover the extent and limits which they had on the thirty-first of December, eighteen hundred and fifty-two, with the alterations established in the following article.

Art. 49. The town of Contepec, now belonging to Guanajuato, shall be annexed to Michoacán. The municipality of Ahualulco, belonging to Zacatecas, shall be annexed to San Luis Potosí. The municipalities of Ojo Caliente and San Francisco de los Adames, belonging to San Luis, as well as the towns of Nueva Tlaxcala and

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Art. 45. The States and Territories of the Federation shall keep their present boundaries and areas, provided no boundary question shall exist between them.

Art. 46. The States having pending boundary questions shall arrange or settle them as provided by this Constitution.

Art. 47. *The State of Nayarit shall have the territorial area and boundaries at present comprising the Territory of Tepic.*

Art. 48. *The islands in both oceans embraced within the national territory shall depend directly on the Federal Government, excepting those over which the States have up to the present time exercised jurisdiction.*

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San Andrés del Teul, belonging to Jalisco, shall be annexed to Zacatecas. The department of Túxpam shall continue to form a part of Vera Cruz. The canton of Huimanguillo, belonging to Vera Cruz, shall be annexed to Tabasco.

Title III

Of the Division of Powers

Art. 50. The supreme power of the Federation is divided for its exercise into legislative, executive, and judicial. Two or more of these powers shall never be united in one person or corporation, nor shall the legislative power be vested in one individual.

SECTION I

Of the Legislative Power

Art. 51. The legislative power of the United States of Mexico is vested in a general Congress which shall consist of a House of Representatives and a Senate. [*As amended November 13, 1874.*]

PARAGRAPH I

Of the Election and Installation of the Congress

Art. 52. The House of Representatives shall consist of representatives of the Nation, all of whom shall be elected every two years by the citizens of Mexico. [*As amended November 13,1874.*]

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Title III

CHAPTER I

Of the Division of Powers

Art. 49. The supreme power of the Federation is divided for its exercise into legislative, executive and judicial.

Two or more of these powers shall never be united in one person or corporation, nor shall the legislative power be vested in one individual *except in the case of extraordinary powers granted to the executive, in accordance with the provisions of Article 29.*

CHAPTER II

Of the Legislative Power

Art. 50. **[Identical]**

SECTION I

Of the Election and Installation of the Congress

Art. 51. **[Identical]**

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Art. 53. One representative shall be chosen for each 60,000 inhabitants or for any fraction thereof exceeding 20,000, on the basis of the general census of the Federal District and of each State and Territory. Any State or Territory in which the population shall be less than that fixed by this article shall, nevertheless, elect one representative. [*As amended December 18, 1901.*]	Art. 52. **[Identical]**
Art. 54. There shall be elected an alternate for each representative.	Art. 53. **[Identical]**
Art. 55. The election of representatives shall be direct, in accordance with the provisions of the electoral law. [*As amended April 26, 1912.*]	Art. 54. **[Identical]**
Art. 56. Representatives shall have the following qualifications: To be Mexican citizens in the enjoyment of their rights; to be twenty-five years of age on the day of the opening of the session; to be domiciled in the State or Territory in which the election is held, and not to belong to the ecclesiastical state. The domicile shall not be lost through absence in the discharge of any elective office.	Art. 55. Representatives shall have the following qualifications: I. They shall be Mexican citizens *by birth*[15] and in the enjoyment of their rights. II. They shall be over twenty-five years of age *on the day of election.* III. They shall be *natives* of the States or Territories respectively electing them, or domiciled *and actually resident therein for six months immediately prior to the election.* The domicile shall not be lost through absence in the discharge of any elective office. IV. *They shall not be in active service in the Federal army, not have any command in the police corps or rural constabulary in the districts where the elections respectively take place, for at least ninety days immediately prior to the election.*

[15] *See* Art. 30 of 1917.

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	V. *They shall not hold the office of secretary nor assistant secretary of any executive department nor of justice of the supreme court, unless they shall have resigned therefrom ninety days immediately prior to the election.* *No State Governor, Secretary of State of the several States, nor State Judge shall be eligible in the Districts within their several jurisdictions, unless they shall have resigned from their office ninety days immediately prior to the day of election.* VI. They shall not be ministers of any religious creed.
	Art. 56. The Senate shall consist of two Senators from each State and two from the Federal District, chosen in direct election. Each State Legislature shall certify to the election of the candidate who shall have obtained a majority of the total number of votes cast. **[Identical with first part of Art. 58 A of 1857.]**
Art. 57. The offices of senator and representative are incompatible with any other office or commission of the Federal Government for which any emolument is received. [*As amended November 13, 1874.*]	Art. 57. There shall be elected an alternate for each senator. **[Identical with closing sentence of Art. 58 A of 1857.]**
Art. 58. Representatives and senators are disqualified, from the day of their election until the day on which their term expires, from accepting from the Federal executive without previous permission of the respective House any salaried office.	Art. 58. Each senator shall serve four years. The senate shall be renewed by half every two years. **[Identical with opening sentence of Art. 58 B of 1857.]** **[Identical with Art. 62 of 1917, excepting italicized portion.]**

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The same provision is applicable to alternates when in active service.	
A. The Senate shall consist of two Senators for each State and two for the Federal District. The election of senators shall be direct in the first degree. Each State legislature shall declare the candidate elected who shall have obtained a majority of the votes cast **or it shall choose, in the manner prescribed by the electoral law, from among those obtaining a pluralty.** There shall be elected an alternate for each Senator.	
B. The Senate shall be renewed by half every two years. Senators occupying the second place in the representation of each State, shall vacate their seats at the end of the first two years. After the second year the withdrawal shall be according to seniority.	**[Compare Art. 58 of 1917.]**
C. The qualifications necessary to be a senator shall be the same as those necessary to be a representative, except as to the age, which in the case of a senator who shall be at least thirty years of age on the day of the opening of the session. [*As amended November 13, 1874.*]	Art. 59. The qualifications necessary to be a senator shall be the same as those necessary to be a representative, excepting that of age, which shall be over *thirty-five on the day of election.*
Art. 59. Representatives and senators are inviolable for opinions expressed by them in the discharge of their duties, and shall never be called to account for them. [*As amended November 13, 1874.*]	**[Identical with Art. 61 of 1917.]**
Art. 60. Each House shall be the judge of the election of its	Art. 60. Each House shall be the judge of the election of its

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members, and shall decide all questions arising therefrom. [*As amended November 13, 1874.*]

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members and shall decide all questions arising therefrom. *Its decisions shall be final.*

Art. 61. Representatives and Senators are inviolable for opinions expressed by them in the discharge of their duties, and shall never be called to account for them.

[Identical with Art. 59 of 1857.]

Art. 62. Representatives and senators shall be disqualified during the terms for which they have been elected from holding any Federal *or State* commission or office for which any emolument is received without previous permission of the respective House; in the event of their accepting such commission or office they shall forthwith lose their representative character for such time as they shall hold such appointive office. The same provision shall apply to alternate representatives and senators, when in active service. *The violation of this provision shall be punished by forfeiture of the office of representative or senator.*

[Identical with Art. 58 of 1857 excepting italicized portion.]

Art. 61. The Houses shall not open their sessions nor exercise their functions without a quorum, in the Senate of two-thirds, and in the House of Representatives of a majority of the total of its members; but the members present of either House shall meet on the appointed day and compel through the proper penalties the attendance of the

Art. 63. The Houses shall not open their sessions nor exercise their functions without a quorum, in the Senate of two-thirds, and in the House of Representatives of a majority of the total membership; but the members present of either House shall meet on the day appointed by law and compel the attendance of the absentees *within the next*

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absentees. [*As amended November 13, 1874.*]	*thirty days, and they shall warn them that failure to comply with this provision shall be taken to be a refusal of office, and the corresponding alternates shall be summoned forthwith; the latter shall have a similar period within which to present themselves, and on their failure to do so the seats shall be declared vacant and new elections called.* *Representatives or Senators who shall be absent during ten consecutive days without proper cause or without leave of the President of the respective House, notice of which shall be duly communicated to the House, shall be understood as waiving their right to attend until the next session, and their alternates shall be summoned without delay.* *If there shall be no quorum to organize either of the Houses or to continue their labors, once organized, the alternates shall be ordered to present themselves as soon as possible for the purpose of taking office until the expiration of the thirty days hereinbefore mentioned.*
	Art. 64. *No representative or senator who shall fail to attend any daily session without proper cause or without previous permission of the respective House, shall be entitled to the compensation corresponding to the day on which he shall have been absent.*
Art. 62. The Congress shall hold **two ordinary sessions each year**: the first shall begin on the sixteenth of September and end on the fifteenth of December;	Art. 65. *The Congress shall meet on the first day of September of each year in regular session for the consideration of the following matters:*

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but this period may be extended for thirty working days. The second shall begin on the first of April and end on the last day of May, but may be extended for fifteen working days. [*As amended November 13, 1874.*]

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I. To audit the accounts of the previous year which shall be submitted to the House of Representatives not later than ten days after the opening of the session. *The audit shall not be confined to determining whether the expenditures do or do not conform with the respective items in the Budget, but shall comprise an examination of the exactness of, and authorization for, payments made thereunder, and of any liability arising from such payments.*

No other secret items shall be permitted than those which the budget may consider necessary as such; these amounts shall be paid out by the secretaries of executive departments under written orders of the President.

II. To examine, discuss and approve the budget for the next fiscal year, and to lay such taxes as may be needed to meet the expenditures.

III. To study, discuss and vote on all bills presented and to discuss all other matters incumbent upon the Congress by virtue of this Constitution.

Art. 66. *The regular session of the Congress shall last the period necessary to deal with all of the matters mentioned in the foregoing article, but it may not be extended beyond the thirty-first day of December of the same year. Should both Houses fail to agree as to adjournment prior to the above date, the matter shall be decided by the executive.*

Art. 67. The Congress shall meet in extraordinary session whenever so summoned by the

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President, but in such event it shall consider only the matter or matters submitted to it by the President, who shall enumerate it or them in the respective call. The President shall have power to convene in extraordinary session only one of the Houses when the matter to be referred to it pertains to its exclusive jurisdiction.

[Substantially identical with Arts. 68 & 69 of 1857.]

Art. 68. Both Houses shall hold their meetings in the same place and shall not move to another without having first agreed upon the moving and the time and manner of accomplishing it, as well as upon the place of meeting, which shall be the same for both Houses. If both Houses agree to change their meeting place but disagree as to the time, manner and place the President shall settle the question *by choosing one of the two proposals.* Neither House may suspend its sessions for more than three days without the consent of the other.

[Identical with Art. 71 G of 1857 excepting italicized portion.]

Art. 63. At the opening of the sessions of the Congress the President shall be present and make an address in which he shall give information on the state of the country. **The President of the Congress shall reply in general terms.**

Art. 69. The President of the Republic shall attend at the opening of the sessions of the Congress, whether regular or extraordinary, *and shall submit a report in writing;* this report shall, in the former case, relate to the general state of the Union; and in the latter, it shall explain to the Congress or to the House addressed the reasons or causes which rendered the call

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Art. 64. Every measure of the Congress shall be in the form of a law or decree. The laws or decrees shall be communicated to the Executive after having been signed by the Presidents of both Houses and by one of the secretaries of each. When promulgated, the enacting clause shall read as follows:

"The Congress of the United States of Mexico decrees (text of the law or decree)." [*As amended November 13, 1874.*]

PARAGRAPH II

Of the Origin and Formation of Laws

Art. 65. The right to originate legislation pertains:

I. To the President of the Republic

II. To the Representatives and Senators of the Congress

III. To the State Legislatures. [*As amended November 13, 1874.*]

Art. 66. Bills submitted by the President of the Republic, by State Legislatures or delegations thereof, shall be at once referred to committee. Those introduced by representatives or senators shall be subject to the rules of procedure. [*As amended November 13, 1874.*]

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necessary and the matters requiring immediate attention.

Art. 70. **[Identical]**

SECTION II

Of the Origin and Formation of the Laws

Art. 71. The right to originate legislation pertains:

I. To the President of the Republic;

II. To the Representatives and Senators of the Congress;

III. To the State Legislatures.

Bills submitted by the President of the Republic, by State Legislatures or by delegations of the States shall be at once referred to committee. Those introduced by representatives or senators shall be subject to the rules of procedure.

[Identical with Arts. 65 and 66 of 1857]

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Art. 67. No bill rejected in the House of origin before passing to the other House shall be reintroduced during the session of that year. [*As amended November 13, 1874.*]	**[Identical with Art. 72 (g) of 1917]**
Art. 68. The second period of sessions shall be devoted with preference over all other matters, to the making of the necessary appropriations for the support of the Government in the following fiscal year, the levying of the taxes necessary to meet the expenses, and the examination of the accounts of the past year submitted by the Executive.	
Art. 69. The Executive shall transmit to the House of Representatives, on the eve of the last day of the session, the accounts of the year and the budget for the next. They shall be referred to a special committee, which shall be appointed on that day, consisting of five members, whose duty it shall be to examine both documents and report thereon at the second meeting of the second period. [*As amended November 13, 1874.*]	
Art. 70. Legislative measures may be originated in either House, excepting bills dealing with loans, taxes or imposts, or with the raising of troops which must have their origin in the House of Representatives. [*As amended November 13, 1874.*]	**[Identical with Art. 72 (h) of 1917]**
Art. 71. Bills, action on which shall not pertain exclusively to	Art. 72. **[Identical]**

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one of the Houses, shall be discussed first by one and then by the other, according to the rules of procedure as to the form, time of presentation and other details relative to discussions and votes.	
A. After a bill has been approved in the House where it originated it shall be sent to the other House for consideration. If passed by the latter it shall be transmitted to the President who, if he has no observations to make thereto, shall immediately promulgate it.	(a) [**Identical**]
B. Bills not returned by the Executive within ten working days with his observations to the House in which they originated, shall be considered approved, unless during the said ten days the Congress shall have adjourned or suspended its sessions, in which event they shall be returned on the first working day after the Congress shall have reconvened.	(b) [**Identical**]
C. Bills rejected in whole or in part by the Executive shall be returned with his observations to the House where they originated. They shall be discussed anew by the latter and if passed by a majority vote shall be sent to the other. If approved by it, also by the same majority vote, the bill shall become a law and shall be sent to the Executive for promulgation. In such cases the voting in both Houses shall be by yeas and nays.	(c) Bills rejected in whole or in part by the Executive shall be returned with his observations to the House where they originated. They shall be discussed anew by this House and if confirmed by *a two-thirds majority vote of the total membership* shall be sent to the other House for reconsideration. If approved by it, also by the same majority vote, the bill shall become law and shall be returned to the Executive for promulgation. The voting in both Houses shall be by yeas and nays.

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D. Bills totally rejected by the House not originating them shall be returned with the proper observations to the House of origin. If examined anew and approved by a majority of the members present, they shall be returned to the House rejecting them, which shall once again take them under consideration, and if approved by it, likewise by the same majority vote, they shall be sent to the Executive for the purposes of Clause A; but if the said House fail to approve them, they shall not be reintroduced in the same session.	(d) **[Identical]**
E. Bills rejected in part or modified or amended by the House of revision shall be discussed anew in the House of origin, but the discussion shall be confined to the portion rejected or to the amendments or additions, without the approved articles being altered in any respect. If the additions or amendments made by the House of revision be approved by a majority vote of the members present in the House of origin, the bill shall be transmitted to the Executive for the purposes of Clause A; but if the amendments or additions by the House of revision be rejected by a majority vote of the House of origin they shall be returned to the former House in order that the reasons set forth by the latter may be taken into consideration.	(e) **[Identical]**

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If in this second revision the said additions or amendments be rejected by a majority vote of the members present the portion of the bill which has been approved by both Houses shall be sent to the Executive for the purposes of Clause A. If the House of revision insist by a majority vote of the members present upon the additions or amendments, no action shall be taken on the whole bill until the next session, unless both Houses agree, by a majority vote of the members present, to the promulgation of the law without the articles objected to, which shall be left till the next session, when they shall be then discussed and voted upon.	
F. The same formalities as are required for the enactment of laws shall be observed for their interpretation, amendment or repeal.	(f) [Identical]
G. Both Houses shall hold their meetings at the same place, and shall not move to another without first having agreed upon the moving and the time and manner of accomplishing it, as well as upon the place of meeting which shall be the same for both Houses. If both Houses agree to change their meeting place, but disagree as to the time, manner or locality, the Executive shall settle the question. Neither House shall adjourn for more than three days without the consent of the other.	[Identical with Art. 68 of 1917]

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H. When Congress meets in extra session it shall deal exclusively with the matter or matters specified in the call. If the object of the extra session has not been accomplished at the time in which the ordinary session begins, there shall be, nevertheless, a formal closing of the extra session, and the unfinished business shall be taken up and discussed in the ordinary session.

The Executive shall not make any observations touching the resolutions of the Congress providing for an adjournment of its sessions, or passed by it when sitting as an electoral body or as a grand jury. [*As amended November 13, 1874.*]

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(g) No bill rejected in the House of origin before passing to the other House shall be reintroduced during the session of that year.

[Identical with Art. 67 of 1857]

(h) Legislative measures may be originated in either House, excepting bills dealing with loans, taxes or imposts, or with the raising of troops which must have their origin in the House of Representatives.

[Identical with Art. 70 of 1857]

(i) *Whenever a bill shall be presented to one House it shall be first discussed there unless one month shall have elapsed since it was referred to committee and not reported, in which event an identical bill may be presented and discussed in the other House.*

(j) The President shall not make any observations touching the resolutions of the Congress or of either House when acting as an electoral body or as a grand jury, *nor when the House of Representatives shall declare that there are grounds to impeach any high federal authority for official offences.*

Nor shall he make any observations touching the order for a call issued by the Permanent Committee as provided in Article 84.

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PARAGRAPH III	SECTION III
Of the Powers of the Congress	*Of the Powers of the Congress*
Art. 72. The Congress shall have power:	Art. 73. The Congress shall have power:
I. To admit new States or Territories into the Federal Union, incorporating them into the Nation.	I. To admit new States or Territories into the Federal Union.
II. To grant statehood to Territories which have a population of eighty thousand inhabitants and the necessary means to provide for their political existence.	II. **[Identical]**
III. To form new States within the boundaries of existing ones, provided the following requisites are complied with:	III. **[Identical]**
1. That the section or sections aspiring to statehood have a population of one hundred and twenty thousand inhabitants at least;	
2. That proof be given to the Congress that it has sufficient means to provide for its political existence;	
3. That the legislatures of the States affected be heard as to the advisability or inadvisability of granting such statehood, which opinion shall be given within six months reckoned from the day on which the respective communication is forwarded;	
4. That the opinion of the Executive of the Federal Government be also heard on the subject; this opinion shall be given within seven days after the date on which it was requested.	
5. That the creation of the new State be voted upon favorably by two-thirds of the Repre-	

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sentatives and Senators present in their respective Houses.	
6. That the resolution of the Congress be ratified by a majority of the State Legislatures, upon examination of a copy of the record of the case, provided that the Legislatures of the States to which the section belongs shall have given their consent.	
7. That the ratification referred to in the foregoing clause be given by two-thirds of the legislatures of the other States, if the legislatures of the States to which the Section belongs have not given their consent. [*As amended November 13, 1874.*]	
IV. To settle finally the limits of the States, terminating the differences which may arise between them relative to the demarcation of their respective territories, except when the differences be of a litigious nature.	IV. **[Identical]**
V. To change the residence of the supreme powers of the Federation.	V. **[Identical]**
VI. To legislate in all matters relating to the Federal District and the Territories.	VI. To legislate in all matters relating to the Federal District and the Territories, *as hereinafter provided:*
	1. *The Federal District and the Territories shall be divided into municipalities, each of which shall have the area and population sufficient for its own support and for its contribution toward the common expenses.*
	2. *Each municipality shall be governed by a town council elected by direct vote of the people.*
	3. *The Federal District and each of the Territories shall be administered by governors under the direct orders of the President of the Republic. The Governor of*

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the Federal District shall despatch with the President, and the Governor of each Territory shall despatch with the President through the duly constituted channels. The Governor of the Federal District and the Governor of each Territory shall be appointed by the President and may be removed by him at will.

4. The Superior Judges and those of First Instance of the Federal District as well as of the Territories shall be named by the Congress, acting in each case as an electoral college. In the temporary or permanent absences of the said Superior Judges these shall be replaced by appointment of the Congress, and in recess by temporary appointments of the Permanent Committee. The organic law shall determine the manner of filling temporary vacancies in the case of judges, and shall designate the authority before whom they shall be called to account for any dereliction, excepting the provisions of this Constitution with regard to the responsibility of officials. From and after the year 1923 the Superior Judges and those of First Instance to which this clause refers may only be removed from office for bad conduct and after impeachment, unless they shall have been promoted to the next higher grade. From and after the said date the compensation enjoyed by said officials shall not be diminished during their term of office.

5. The office of the Public Attorney (Ministerio Publico) of the Federal District and of the

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	Territories, shall be in charge of an Attorney General, who shall reside in the City of Mexico and of such Public Attorney or Attorneys as the law may determine; the said Attorney General shall be under the direct orders of the President of the Republic, who shall appoint and remove him at will.
VII. To lay the taxes necessary to meet the expenditures of the budget.	VII. **[Identical]**
VIII. To establish the bases upon which the Executive may make loans on the credit of the nation; to approve the said loans and to acknowledge and order the payment of the national debt.	VIII. **[Identical]**
IX. To enact laws fixing the duties to be levied on foreign commerce, and to prevent **by general provisions, onerous,** restrictions from being imposed on interstate commerce.	IX. To enact tariff laws on foreign commerce and to prevent restrictions from being imposed on interstate commerce.
X. To promulgate mining and commercial codes, which shall be binding throughout the whole Republic. The banking law shall form a part of the code of commerce. [*As amended December 14, 1883.*]	X. To legislate for the entire Republic in all matters relating to mining, commerce, and institutions of credit, *and to establish the sole bank of issue, as provided in Article 28 of this Constitution.*
XI. To create or abolish Federal offices, and to fix, increase, or decrease the compensations assigned thereto.	XI. **[Identical]**
XII. To confirm the nominations made by the Executive, of ministers, diplomatic agents, and	

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consuls, superior officers of the treasury, colonels and other superior officers of the national army and navy. [*Transferred to Art. 72 B, II, Exclusive Powers of the Senate, November 13, 1874.*]	
XIII. To approve the treaties, agreements, or diplomatic conventions which the Executive may make. [*Transferred to Art. 72 B, I, Exclusive Powers of the Senate, November 13, 1874.*]	
XIV. To declare war, upon examination of the facts submitted by the Executive.	XII. **[Identical]**
XV. To regulate the manner in which letters of marque may be issued; to enact laws according to which prizes on sea and land shall be adjudged valid or invalid; and to frame the admiralty law for times of peace and war.	XIII. **[Identical]**
XVI. To grant or refuse permission to foreign troops to enter the territory of the Republic, and to allow fleets of other powers to remain for more than one month in the waters of the Republic. [*Transferred to Art. 72 B, III, Exclusive Powers of Senate, November 13, 1874.*]	
XVII. To allow national troops to go beyond the limits of the republic. [*Transferred to Art. 72 B, III, Exclusive Powers of Senate, November 13, 1874.*]	
XVIII. To raise and maintain the army and navy of the Union, and to regulate their organization and service.	XIV. **[Identical]**
XIX. To make rules for the organization **armament,** and	XV. To make rules for the organization and discipline of

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discipline of the national guard, reserving respectively to the citizens who compose it the appointment of the commanders and officers, and to the States the power of instructing it in conformity with the discipline prescribed by said regulations.

XX. To consent to the use by the Executive of the national guard outside of its respective States and Territories, determining the strength of the force required.

[*Transferred to Art. 72 B, IV, Exclusive Powers of Senate, November 13, 1874.*]

XXI. To enact laws on citizenship, naturalization, colonization, emigration, immigration and public health of the Republic.

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the National Guard, reserving for the citizens who compose it the right of appointing their respective commanders and officers, and to the States the power of instructing it in conformity with the discipline prescribed by the said regulations.

XVI. To enact laws on citizenship, naturalization, colonization, emigration, immigration and public health of the Republic.

1. *The Public Health Service shall depend directly upon the President of the Republic, without the intervention of any executive department, and its general provisions shall be binding throughout the Republic.*

2. *In the event of epidemics of a grave or dangerous nature, of the invasion of diseases from abroad, the Public Health Service shall put into force without delay the necessary preventive measures, subject to their subsequent sanction by the President of the Republic.*

3. *The sanitary authorities shall have executive faculties and their determinations shall be obeyed by the administrative authorities of the country.*

4. *All measures which the Public Health Service shall have put into effect in its campaign against alcoholism and the sale of sub-*

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	stances injurious to man and tending to degenerate the race shall be subsequently revised by the Congress, in such cases as fall within the jurisdiction of the latter.
XXII. To enact laws on the general means of communication and on post-roads and post-offices, **to define and determine the waters subject to Federal jurisdiction and to enact laws as to the use and development of the same.** [*As amended June 20, 1908.*]	XVII. To enact laws on general means of communication, postroads and post offices and to enact laws as to the use and development of the waters subject to the Federal jurisdiction.
XXIII. To establish mints, regulate the value and kinds of the national coin, fix the value of foreign moneys, and adopt a general system of weights and measures.	XVIII. **[Identical]**
XXIV. To make rules for the occupation and alienation of public lands and the prices thereof.	XIX. **[Identical]**
	XX. *To enact laws as to the organization of the diplomatic and consular services.*
	XXI. *To define the crimes and offenses against the Nation and to fix the penalties therefor.*
XXV. To grant pardons for offenses subject to federal jurisdiction.	XXII. **[Identical]**
XXVI. To grant rewards and recompenses for eminent services rendered to the country or to humanity. [*As amended June 2, 1882.*]	
XXVII. To extend for thirty working days the first period of its ordinary sessions.	
XXVIII. To make rules for its internal government and to enact the necessary provisions to compel the attendance of absent Representatives and Senators and to punish the acts of commission or omission of those present.	XXIII. **[Identical]**

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XXIX. To issue the organic law of the office of the Comptroller of the Treasury.

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XXIV. [Identical]

XXV. *To sit as an electoral college and to name the Justices of the Supreme Court, and the Superior and Inferior Judges of the Federal District and Territories.*

XXVI. *To accept the resignation of the Justices of the Supreme Court and of the Superior and Inferior Judges of the Federal District and Territories, and to name substitutes in their absence and to appoint their successors.*

XXVII. *To establish professional schools of scientific research and fine arts, vocational, agricultural and trade schools, museums, libraries, observatories and other institutes of higher learning, until such time as these establishments can be supported by private funds. These powers shall not pertain exclusively to the Federal Government.*

All degrees conferred by any of the above institutions shall be valid throughout the Republic.

XXVIII. *To sit as an electoral college and to choose the person to assume the office of President of the Republic, either as a substitute President or as a President ad interim in the terms established by Articles 84 and 85 of this Constitution.*

XXIX. *To accept the resignation of the President of the Republic.*

[Compare Art. 72 A, II of 1857.]

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	XXX. To audit the accounts which shall be submitted annually by the Executive; *this audit shall comprise not only the checking of the items disbursed under the Budget but the exactness of and authorization for the expenditures in each case.*[17]
XXX. To make all laws necessary for carrying into execution the foregoing powers and all other powers vested by this Constitution in the several branches of the Government.	XXXI. **[Identical]**
A. The House of Representatives shall have the following exclusive powers:	Art. 74. The House of Representatives shall have the following exclusive powers:
I. To sit as an electoral college to exercise the powers conferred by law regarding the appointments of constitutional President and Vice President of the Republic, justices of the supreme court and senators for the Federal District. [*Amendment of May 6, 1904.*]	I. To sit as an electoral college to exercise the powers conferred by law as to the election of the President.
II. To pass upon the resignations and leaves of absence of the President and Vice President of the Republic and of the resignations of the justices of the supreme court. [*As amended May 6, 1904.*]	
III. To watch, by means of a **special** committee, over the faithful performance by the Comptroller of the Treasury in the discharge of his duties.	II. To watch by means of a committee appointed from among its own members over the faithful performance by the Comptroller of the Treasury in the discharge of his duties.
IV. To appoint all the higher officers and other employees of the office of the Comptroller of the Treasury.	III. **[Identical]**
V. To act as a grand jury and to formulate articles of impeachment against the functionaries	**[Compare Art. 74, V, of 1917]**

[17] *See* Art. 72 A, VI, of 1857.

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mentioned in article 103 of the Constitution.	
VI. To audit the accounts to be rendered yearly by the Executive, approve the annual budget, and originate taxation for the purpose of meeting the expenses of the Government.	IV. To approve the annual budget, after a discussion as to what taxes must in its judgment be laid to meet the necessary expenditures.
	V. To take cognizance of all charges brought against public officials, as herein provided, for official offenses, and should the circumstances so warrant to impeach them before the Senate; and further to act as a grand jury to decide whether there is or is not good ground for proceeding against any official enjoying constitutional privileges, whenever accused of offenses of the common order.
	VI. *To exercise such other powers as may be expressly vested in it by this Constitution.*
	Art. 75. *The House of Representatives, in passing the budget, shall not fail to assign a definite compensation to every office created by law, and if for any reason such compensation shall not be assigned, the amount fixed in the preceding budget or in the law creating the office shall be presumed to be assigned.*
B. The Senate shall have the following exclusive powers:	Art. 76.
I. To approve the treaties and diplomatic conventions concluded by the Executive with foreign powers.	I. **[Identical]**
II. To confirm the nominations made by the President of diplomatic ministers or agents, consuls general, higher officials of the treasury, colonels and	II. **[Identical]**

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other superior officers of the army and navy, in the manner and form by law provided.	
III. To authorize the Executive to allow national troops to go beyond the limits of the Republic, or to permit foreign troops to pass through the national territory, and to consent to the presence of fleets of another nation for more than one month in Mexican waters.	III. **[Identical]**
IV. To consent to the Executive disposing of the national guard outside of the limits of its respective States or Territories, and to fix the amount of the force to be used.	IV. **[Identical]**
V. To declare, when all the constitutional powers of any State have disappeared, that the occasion has arisen to give the said State a provisional governor, who shall order elections to be held according to the constitution and laws of the State. The appointment of such governor shall be made by the Federal Executive with the approval of the Senate, or in its recess, of the permanent committee. The said functionary shall not be chosen constitutional governor in the elections to be held under the call which he shall issue.	V. To declare, when all the constitutional powers of any State have disappeared, that the occasion has arisen to give to the said State a provisional governor, who shall call for elections to be held according to the constitution and laws of the said State. The appointment of such a governor shall be made *by the Senate with the approval of two-thirds of its members present or during recess by the Permanent Committee by the same two-thirds majority, from among three names submitted by the President.* The official thus selected shall not be chosen constitutional governor in the elections to be held under the call which he shall issue. *This provision shall govern whenever the State Constitutions do not provide for the contingency.*
	VI. *To sit as a Grand Jury to take cognizance of such official offenses of functionaries as are*

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	expressly prescribed by this Constitution.
	VII. *To exercise such other powers as may be expressly vested in it by this Constitution.*
VI. To adjust all political questions arising between the powers of a State whenever one of them shall appeal to the Senate or whenever by virtue of such differences a clash of arms has arisen to interrupt the constitutional order. In this event the Senate shall decide in accordance with the Federal Constitution and the Constitution of the State involved.	VIII. **[Identical]**
The exercise of this power and of the foregoing shall be regulated by law.	
VII. To sit as a court of impeachment, under article 105 of the Constitution. [*As amended November 13, 1874.*]	
C. Each House may, without the intervention of the other:	Art. 77. **[Identical]**
I. Pass resolutions upon matters exclusively relating to its own interior government.	
II. Communicate with the other House, and with the Executive through committees appointed from among its members.	
III. Appoint the employees in the office of its secretary, and make all rules and regulations for the said office.	
IV. Issue a call for extraordinary elections to fill any vacancies which may occur in its membership. [*As amended November 13, 1874.*]	

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PARAGRAPH IV

Of the Permanent Committee

Art. 73. During the recesses of the Congress there shall be a Permanent Committee consisting of twenty-nine members, fifteen of whom shall be Representatives and fourteen Senators, appointed by the respective Houses on the eve of the day of adjournment. [*As amended November 13, 1874.*]

Art. 74. In addition to the powers vested in it by this Constitution, the Permanent Committee shall have the following powers:

I. To give its consent to the use of the national guard as provided in Article 72, Clause XX. [*As amended May 6, 1904.*]

II. To decide upon the call for extraordinary sessions of the Congress or of a single House thereof, either on its own initiative, in which event it shall hear the opinion of the Executive, or on the proposal of the Executive; in either event, the

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SECTION IV

Of the Permanent Committee

Art. 78. During the *recess* of the Congress there shall be a Permanent Committee consisting of twenty-nine members, fifteen of whom shall be Representatives and fourteen Senators, appointed by the respective Houses on the eve of the day of adjournment.

Art. 79. In addition to the powers *expressly* vested in it by this Constitution, the Permanent Committee shall have the following powers:

I. To give its consent to the use of the national guard as provided in Article 76, Clause IV.

II. To administer the oath of office, should the occasion arise, to the President, to the Justices of the Supreme Court, *to the Superior Judges of the Federal District and Territories, on such occasions as the latter officials may happen to be in the City of Mexico.*

[Compare Art. 74, IV of 1857.]

III. To report on all pending matters, so that they may be considered *in the next session.*

[Compare Art. 74, V of 1857.]

IV. To call extraordinary sessions in the case of official offenses or offenses of the common order committed by Secretaries of Executive Departments or Justices of the Supreme Court, and official offenses committed by State Governors, provided the

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two-thirds' vote of the members present shall be necessary. The call shall stipulate the object or objects of the extraordinary session. [*As amended November 13, 1874.*]

III. To confirm the nominations referred to in article 85, Clause III.

IV. To administer the oath of office to the President of the Republic, and to the justices of the supreme court, in the cases provided for by this Constitution.

V. To report upon all pending matters, in order that the next legislature may immediately consider them.

SECTION II

Of the Executive Power

Art. 75. The exercise of the supreme executive power of the Union is vested in a single individual, who shall be called "President of the United States of Mexico."

Art. 76. The election of President shall be direct, in accordance with the terms of the electoral law. [*As amended April 26, 1912.*]

Art. 77. No person shall be eligible to the office of President who is not a Mexican citizen by birth, in the exercise of his rights, over thirty-five years old at the time of the election, not belonging to the ecclesiastical state, and a resident of the country at the time in which the election is held.

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case shall have been already instituted by the Committee of the Grand Jury, in which event no other business of the Congress shall be considered, nor shall the sessions be prolonged beyond the time necessary for a decision.

CHAPTER III

Of the Executive Power

Art. 80. **[Identical]**

Art. 81. **[Identical]**

Art. 82. The President of the Republic shall have the following qualifications:

I. He shall be a Mexican citizen by birth, in the *full enjoyment* of his rights, *and he must be the son of Mexican parents by birth.*

II. He shall be over thirty-five years of age at the time of election.

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III. He shall have resided in the country during *the entire year prior* to the election.

IV. He shall not belong to the ecclesiastical state *nor be a minister of any religious creed.*

V. *In the event of belonging to the army, he shall have retired from active service 90 days immediately prior to the election.*

VI. *He shall not be a secretary or assistant secretary of any executive department, unless he shall have resigned from office 90 days prior to the election.*

VII. *He shall not have taken part, directly or indirectly, in any uprising, riot or military coup.*

Art. 78. The President and **Vice-President** shall enter upon their duties on the first day of December, shall serve six years, and shall never be reelected.

The President shall never be elected Vice-President, nor the Vice-President be elected President for the ensuing term.

Nor may the Secretary of the Executive Department charged with the executive power at the time of the elections be elected President or Vice-President. [*As amended November 27, 1911.*]

Art. 79. The electors who choose the President **shall likewise, on the same day and in the same manner, choose a Vice-President,** who shall have the same qualifications as by Article 77 are required for the office of President.

The Vice-President shall be ex officio President of the Sen-

Art. 83. The President shall enter upon the duties of his office on the first day of December, shall serve *four* years and shall never be reelected.

The citizen who shall replace the constitutional President in the event of his permanent disability shall not be elected President for the ensuing term.

Nor shall the person designated as Acting President during the temporary disabilities of the constitutional President be reelected President for the ensuing term.

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ate; he shall have no voice and shall only be entitled to a vote in the event of a tie. The Vice President may, however, fill any appointive office of the Executive; in the event of disability caused by such appointment or by other causes, he shall be replaced as President of the Senate, as provided in the respective law. [*As amended May 6, 1904.*]

Art. 80. Whenever the President shall fail to present himself on the day set by law to assume office, or whenever a permanent disability occur during his term of office or he be granted permission to leave his office, the **Vice-President** shall assume the exercise of the Executive Power by operation of law, without the need of a new oath of office.

If the disability of the President be permanent **the Vice-President shall complete the term for which he was elected;** in all other cases, he shall serve until the President resume office. [*As amended May 6, 1904.*]

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Art. 84. *In the evcnt of the permanent disability of the President of the Republic, if this shall occur within the first two years of the respective term, the Congress, if in session, shall forthwith act as an electoral college, and with the attendance of at least two-thirds of its total membership shall choose a President by secret ballot and by a majority vote; and the same Congress shall issue the call for Presidential elections and shall endeavor to have the date set for this event as far as possible coincide with the date of the next election of Representatives and Senators to Congress.*

Should the disability of the president occur while Congress is in recess, the Permanent Committee shall forthwith designate a President ad interim who shall call Congress together in extraordinary session, in order that it may in turn issue the call for Presidential elections in the manner provided in the foregoing paragraph.

Should the disability of the President occur in the last two years of the respective term, the Congress, if in session, shall

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	choose the substitute to conclude the period of the presidential term; if Congress shall not be in session the Permanent Committee shall choose a President ad interim and shall summon Congress in extraordinary session, in order that it may act as an electoral college and proceed to the election of the substitute President. *The President ad interim may be chosen by Congress as substitute President.* *The citizen designated as President ad interim for the purpose of calling elections, in the event of the disability of the President within the two first years of the respective term, shall not be chosen in the elections held to fill such vacancy and for which he was designated.*
Art. 81. If neither the President Elect nor **the Vice-President Elect** shall present himself at the beginning of any constitutional term, or the election not have been made and the result made known by the first of December, the outgoing President shall nevertheless vacate office and the Secretary of Foreign Affairs shall forthwith assume the executive power; in the absence or disability of the secretary of Foreign Affairs, one of the secretaries of the executive departments, in the order established by law, shall forthwith assume the executive power. The same procedure shall be observed when, in the event of the permanent or temporary disability of the President, the Vice President shall not present	Art. 85. If the President-Elect shall fail to present himself at the beginning of any constitutional term, or the election not have been held and the result made known by the first of December, the outgoing President shall nevertheless vacate office *and the President ad interim chosen by the Congress, or in its recess by the Permanent Committee, shall forthwith assume the executive power. All action taken hereunder shall be governed by the provisions of the foregoing article.* *In case of a temporary disability of the President, the Congress, or the Permanent Committee if the Congress shall not be in session, shall designate an Acting President during such disability. If a temporary disability shall*

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himself, when the latter shall be granted leave to resign, if he shall be in office, and when the permanent disability of both functionaries shall occur during the term of office.

In the event of the permanent disability of the President and Vice President, the Congress, or in its recess the Permanent Committee, shall immediately issue a call for extraordinary elections.

Should the disability of both functionaries occur in the last year of the constitutional term, no call shall be issued, but the secretary who shall assume the executive power shall continue charged with the same until the new President, or the person to act in his stead according to the preceding provisions, shall take office.

The citizens chosen in the extraordinary elections shall assume office so soon as the corresponding declaration be made, and they shall continue in office for the balance of the constitutional term. Whenever a secretary of an executive department shall be called upon to assume the executive power, he shall discharge this office without need of an affirmation, until such time as he is able to make it. [*As amended, May 6, 1904.*]

Art. 82. Neither the President **nor Vice-President** shall resign office except for grave cause, upon which the Congress shall pass, to which body the resignations shall be presented. [*As amended, May 6, 1904.*]

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become permanent, the action prescribed in the preceding article shall be taken.

In the event of a leave of absence granted to the President of the Republic the person acting in his stead shall not be disqualified from being elected in the ensuing period, provided he shall not have been in office during the holding of elections.

Art. 86. The President shall not resign office except for grave cause, upon which the Congress shall pass, to which body the resignation shall be tendered.

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Art. 83. The President, before entering upon the discharge of the duties of his office, shall make the following affirmation before the Congress, or in its recess before the Permanent Committee: "I do solemnly affirm that I will defend and enforce the Constitution of the United States of Mexico and the laws arising thereunder and that I will faithfully and conscientiously perform the duties of President of the United States of Mexico, to which I have been chosen by the people, having ever in mind the welfare and prosperity of the Nation." The **Vice-President** shall in the same session make an affirmation in similar language to discharge the duties of Vice President, or, should the occasion arise, those of President; if he shall be unable to make the affirmation at the same session as the President, he shall do so at another session. [*As amended, May 6, 1904.*]	Art. 87. The President, before entering upon the discharge of the duties of his office, shall make the following affirmation before the Congress, or in its recess before the Permanent Committee: "I do solemnly affirm that I will defend and enforce the Constitution of the United States of Mexico and the laws arising thereunder and that I will faithfully and conscientiously perform the duties of President of the United States of Mexico, to which I have been chosen by the people, having ever in mind the welfare and prosperity of the Nation; *if I shall fail to do so, may the Nation call me to account.*"
Art. 84. The President **and the Vice-President** shall not absent themselves from the national territory, without the permission of the House of Representatives. [*As amended, May 6, 1904.*]	Art. 88. The President shall not absent himself from the national territory without the permission *of the Congress.*
Art. 85. The President shall have the following powers and duties: I. To promulgate and execute the laws enacted by the Congress, providing, within the executive sphere, for their faithful observance.	Art. 89. I. **[Identical]**

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II. To appoint and remove at will the secretaries of executive departments, to remove the diplomatic agents and superior officers of the treasury, and to appoint and remove at will the other federal officials whose appointment or removal is not otherwise provided for in the Constitution or the laws.	II. To appoint and remove at will the Secretaries of Executive Departments, *the Attorney General of the Republic, the Governor of the Federal District, the Governors of Territories, the Attorney General of the Federal District and Territories;* and to appoint and remove at will all other Federal employees whose appointment or removal is not otherwise provided for by law or in this Constitution.
III. To appoint, with the approval of the Congress, and, in its recess, of the Permanent Committee, ministers, diplomatic agents, and consuls general.	III. To appoint, with the approval of the *Senate*, all ministers, diplomatic agents and consuls general.
IV. To appoint, with the approval of Congress, colonels and other superior officers of the national army and navy, and superior officials of the treasury.	IV. To appoint, with the approval of the *Senate*, the colonels and other superior officers of the army and navy and the superior officials of the treasury.
V. To appoint all other officers of the national army and navy, as by law provided.	V. **[Identical]**
VI. To dispose of the permanent land and sea forces for the domestic safety and foreign defense of the Union.	VI. **[Identical]**
VII. To dispose of the national guard for the same purposes, as provided by Article 72, Clause XX.	VII. To dispose of the national guard for the same purposes, as provided by Article 76, Clause IV.
VIII. To declare war in the name of the United States of Mexico, after the passage of the corresponding resolution by the Congress of the Union.	VIII. **[Identical]**
IX. To grant letters of marque, upon the terms and conditions fixed by the Congress.	IX. **[Identical]**
X. To conduct diplomatic negotiations and to make treaties	X. **[Identical]**

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with foreign powers, submitting them for ratification to the Congress.	
XI. To receive ministers and other envoys from foreign powers.	
XII. To call, upon resolution of the Permanent Committee, an extra session of the Congress.	XI. To call Congress, *or either of the Houses*, in extraordinary session, *whenever in his judgment it may be advisable.*
	XII. **[Identical]**
XIII. To afford the judiciary the assistance necessary for the expeditious exercise of its functions.	
XIV. To open all kinds of ports, establish maritime and frontier custom houses and designate their location.	XIII. **[Identical]**
XV. To grant, according to law, pardons to criminals sentenced for offenses within the jurisdiction of the Federal tribunals.	XIV. To grant, according to law, pardons to criminals sentenced for offenses within the jurisdiction of the Federal tribunals, *and to all persons sentenced for offenses of the common order in the Federal District and Territories.*
	XV. **[Identical]**
XVI. To grant exclusive privileges for a limited time, and according to the respective laws, to discoverers, inventors or improvers in any branch of industry. [*As amended, June 2, 1882.*]	
	XVI. *Whenever the Senate shall not be in session the President may temporarily make the nominations enumerated in Clauses III and IV hereof, but these nominations shall be submitted to the Senate so soon as it reconvenes.*
	XVII. *To exercise such other rights and duties as are expressly conferred upon him by this Constitution.*
Art. 86. For the transaction of administrative matters of the	Art. 90. **[Identical]**

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Federal Government there shall be the number of Secretaries of Executive Departments which the Congress may by law establish, which law shall likewise assign among the various departments the several matters with which each shall be charged.	
Art. 87. No person shall be appointed secretary of an executive department who is not a Mexican citizen by birth, in the enjoyment of his rights, and twenty-five years old.	Art. 91. No person shall be appointed Secretary of an Executive Department who is not a Mexican citizen by birth, in the enjoyment of his rights and who has not attained the age of *thirty* years.
Art. 88. All regulations, decrees, and orders of the President shall be signed by the secretary of the executive department to which the matter pertains. They shall not be binding without this requisite.	Art. 92. All regulations, decrees and orders of the President shall be signed by the Secretary of the Executive Department to which the matter pertains. They shall not be binding without this requisite. *All regulations, decrees, and orders of the President touching the government of the Federal District and the administrative departments shall be transmitted directly by the President to the Governor of the District and to the chief of the respective department.*
Art. 89. The Secretaries of Executive Departments shall, so soon as the sessions of the first period are opened, report to the Congress as to the state of their respective departments.	Art. 93. The Secretaries of Executive Departments shall on the opening of *each regular session* report to the Congress as to the state of their respective Departments. *Either House may summon a Secretary of an Executive Department to inform it, whenever a bill or other matter pertaining to his department is under discussion or consideration.*

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SECTION III

Of the Judicial Power

Art. 90. The judicial power of the Federation is vested in a supreme court and in the district and circuit courts.

Art. 91. The supreme court shall consist of fifteen justices, and shall sit in banc or in sections, as provided by law. [*As amended, May 22, 1900.*]

Art. 92. The justices of the supreme court shall serve for six years, and their election shall be indirect in the first degree, in the manner established by the electoral law.

Art. 93. No person shall be eligible to the position of justice of the supreme court who, in the judgment of the electors, is not

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CHAPTER IV

Of the Judicial Power

Art. 94. The judicial power of the Federation is vested in a Supreme Court and in Circuit and District Courts, *whose number and powers shall be fixed by law.* The Supreme Court of Justice shall consist of *eleven* members; its sittings shall be in banc and *its hearings shall be public, except in the cases where public interest or morality shall otherwise require. It shall meet at such times and under such conditions as by law prescribed. No sittings of the court shall be held without the attendance of at least two-thirds of its total membership, and all decisions rendered shall be by a majority vote.*

The Justices of the Supreme Court chosen to this office in the forthcoming elections shall serve two years; those elected at the conclusion of this first term shall serve four years, and from and after the year 1923 the Justices of the Supreme Court, the Circuit and District judges may only be removed for malfeasance and after impeachment proceedings, unless the Circuit and District Judges be promoted to the next higher grade.

The same provision shall govern, in so far as it be applicable to the terms of two and four years, respectively, to which this article refers.

Art. 95. The Justices of the Supreme Court shall have the following qualifications:

I. They shall be Mexican

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learned in the science of law, thirty-five years of age, and a Mexican citizen by birth, in the exercise of his rights.

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citizens by birth, in the full enjoyment *of their civil and political rights.*

II. They shall be over thirty-five years of age at the time of election.

III. *They shall be graduates in law of some institution or corporation authorized by law to confer such degrees.*

IV. *They shall be of good repute and not have been convicted of any offense punishable with more than one year's imprisonment; but conviction of larceny, deceit, forgery, embezzlement or any other offense seriously impairing their good name in the public mind shall disqualify them for office, whatever may have been the penalty imposed.*

V. *They shall have resided in the country for the last five years, except in the case of absence due to public service abroad for a period not exceeding six months.*

Art. 96. *The members of the Supreme Court of Justice shall be chosen by the Congress, acting as an electoral college; the presence of at least two-thirds of the total number of Representatives and Senators shall be necessary for such action. The election shall be by secret ballot and by a majority vote, and shall be held as among the candidates previously proposed, one being nominated by each State legislature, as provided in the respective State laws.*

Should no candidate receive a majority on the first ballot, the balloting shall be repeated between the two candidates receiving the highest number of votes.

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Art. 94. The justices of the supreme court shall, on entering upon the exercise of their functions, take an oath before Congress, and, in its recesses, before the permanent committee, in the following form: "Do you swear to perform loyally and patriotically the office of justice of the supreme court of justice, to which you have been chosen by the people, in conformity with the Constitution, having ever in mind the welfare and prosperity of the Union?"	**[Compare the last two paragraphs of Art. 97 of 1917.]**
Art. 95. The resignation of a justice of the supreme court shall only be accepted for grave cause, approved by the Congress, to whom the resignation shall be tendered. In the recesses of the Congress the power to act on this matter belongs to the Permanent Committee.	**[Identical with Art. 99 of 1917]**
Art. 96. The law shall establish and organize the circuit and district courts, and the office of the Public Attorney of the Federation. The officers of the Public Attorney and the Attorney General of the Republic who shall preside over the same shall be appointed by the Executive. [*As amended May 22, 1900.*]	Art. 97. All Circuit and District Judges shall be appointed by the Supreme Court of Justice; they shall have such qualifications as by law required, shall serve four years and shall not be removed except by impeachment proceedings or for incapacity to discharge their duties, in accordance with the law. The Supreme Court of Justice may remove the District Judges from one District to another, or it may fix their seats in another locality, as it may deem most advantageous to the public business. A similar procedure shall

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be observed in the case of Circuit Judges.

The Supreme Court of Justice may likewise appoint auxiliary Circuit and District Judges to assist in the labors of such courts as have an excessive amount of business, in order that the administration of justice may be speedy; it shall also name one or more of its members or some district or circuit judge or shall designate one or more special commissioners, whenever it shall deem it advisable or on the request of the President or of either House or of any State Governor, solely for the purpose of inquiring into the behavior of any judge or federal justice or into any fact or facts which amount to a violation of any individual rights or to the subversion of the popular will or any other offense punishable by Federal statute.

The Circuit and District Courts shall be assigned among the several Justices of the Supreme Court who shall visit them periodically, shall observe the conduct of their judges, listen to any complaint presented against them and perform all such other acts as the law may require. The Supreme Court shall appoint and remove at will its clerk of the court and other employees on the roster established by law. The Circuit and District Judges shall likewise appoint and remove at will their respective clerks and employees.

The Supreme Court shall choose each year one of its mem-

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	bers to act as Chief Justice, with the right of re-election. Each Justice of the Supreme Court on assuming office shall make an affirmation before Congress, or if this is in recess, before the Permanent Committee, as follows: The Presiding Officer shall say: "Do you promise to perform faithfully and conscientiously the duties of Justice of the Supreme Court with which you have been charged, and to defend and enforce the Constitution of the United States of Mexico and the laws arising thereunder, having ever in mind the welfare and prosperity of the Nation?" To which the Justice shall reply, "I do." On which the Presiding Officer shall answer: "If you fail to do so, may the Nation call you to account." The Circuit and District Judges shall make the affirmation of office before the Supreme Court or before such other authority as the law may determine.
	Art. 98. *No temporary disability of a Justice of the Supreme Court not exceeding one month shall be filled, provided there be otherwise a quorum. In the absence of a quorum the Congress, or in its recess the Permanent Committee, shall name a substitute selected from among the candidates submitted by the States for the election of the justice in question and not chosen, to serve during such disability. If the disability does not exceed two months,*

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the Congress, or during its recess the Permanent Committee, shall choose at will a temporary justice.

In the event of the death, resignation or disqualification of any justice of the supreme court, a new election shall be held by the Congress to fill this vacancy as provided in Article 96.

If the Congress shall not be in session, the Permanent Committee shall make a temporary appointment until such time as the Congress shall convene and proceed to the corresponding election.

Art. 99. **[Identical with Art. 95 of 1857.]**

Art. 100. *The Supreme Court shall grant all leaves of absence of its members, when they do not exceed one month; such as do exceed this period shall be granted by the House of Representatives, or during its recess by the Permanent Committee.*

Art. 101. *No justice of the supreme court, circuit or district judge, nor clerk of any of these courts shall under any circumstances accept any State, Federal or private commission or office, excepting honorary titles from scientific, literary or charitable associations. The violation of this provision shall work a forfeiture of office.*

Art. 102. *The office of the Public Attorney shall be organized in accordance with the law, and its officers shall be appointed and removed at will by*

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the Executive. They shall be under the direction of an Attorney General who shall possess the same qualifications as are required for the office of Justice of the Supreme Court.

The Public Attorneys shall be charged with the judicial prosecution of all Federal offenses; they shall accordingly sue out all orders of arrest, assemble and offer all evidence as to the responsibility of the accused, see that the trials are conducted in due order so that the administration of justice may be speedy, pray the imposition of sentence, and in general take part in all matters required by law.

The Attorney General of the Republic shall personally intervene in matters to which the Federal Government is a party, in cases affecting ministers, diplomatic agents and consuls general, and in all controversies between two or more States of the Union, between the Federal Government and a State or between the several powers of a State. The Attorney General may either personally or through one of the Public Attorneys take part in all other cases in which the Public Attorneys are called upon to act.

The Attorney General shall be the legal advisor of the Government, and both he and the Public Attorneys under his orders shall faithfully obey the law and shall be liable for all breaches or for any violations which they may incur in the discharge of their duties.

Art. 103. **[Identical with Art. 101 of 1857.]**

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Art. 97. The Federal tribunals shall take cognizance of:

I. All controversies arising out of the application and enforcement of the federal laws, excepting when the application only affects private rights, when the regular local courts of the States, The Federal District and Territory of Lower California shall assume jurisdiction, respectively. [*As amended May 29, 1884.*]

II. All cases pertaining to admiralty law.

III. All cases to which the Federation may be a party.

IV. All cases which may arise between two or more States.

V. All cases arising between a State and one or more citizens of another State.

VI. All civil or criminal cases that may arise out of treaties with foreign powers.

VII. All cases concerning diplomatic agents and consuls.

Art. 98. The supreme court shall have original jurisdiction of controversies which may arise between one State and another, and of those to which the Federal Government may be a party.

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Art. 104. The Federal Tribunals shall have jurisdiction over:

I. All controversies of a civil or criminal nature arising out of the application and enforcement of the Federal laws, or out of treaties concluded with foreign powers. Whenever such controversies affect only private rights, the regular local courts of the States, the Federal District and Territories shall, *at the election of the plaintiff*, assume jurisdiction. *Appeal may be had from all judgments of first instance to the next higher tribunal of the same court in which the case was first heard. Appeal may be taken from sentences of second instance to the Supreme Court of Justice, which appeal shall be prepared, submitted and prosecuted, in accordance with the procedure provided by law.*

II. **[Identical]**

III. **[Identical]**

IV. All cases arising between two or more States, *or between any State and the Federal Government, as well as those arising between the courts of the Federal District and those of the Federal Government or of a State.*

V. **[Identical]**

VI. **[Identical with VII.]**

Art. 105. The Supreme Court of Justice shall have *exclusive* jurisdiction in all controversies arising between two or more States, *between the powers of government of any State as to the constitutionality of their acts, or between one or more*

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	States and the Federal Government, and in all cases to which the Federal Government may be a party.
Art. 99. The supreme court shall also have power to settle questions of jurisdiction between Federal tribunals, between these tribunals, and those of the States, or between those of one State and those of another.	Art. 106. The Supreme Court of Justice shall likewise have *exclusive* jurisdiction to determine all questions of jurisdiction between the Federal tribunals, between these and those of the States, or between those of one State and those of another.
Art. 100. In all the other cases mentioned in Article 97, the supreme court shall be either a court of appeals, or a court of last resort, as may be defined by the law regulating the jurisdiction of the circuit and district courts.	
Art. 101. The Federal tribunals shall take cognizance of: I. All controversies arising out of laws or acts of the authorities which shall infringe any personal guarantees. II. All controversies arising out of laws or acts of the federal authorities which limit or encroach upon the sovereignty of the States. III. All controversies arising out of laws or acts of the State authorities which invade the sphere of the Federal authorities.	[Identical with Art. 103 of 1917.]
Art. 102. All controversies mentioned in Article 103 shall be prosecuted by the injured party in accordance with the judicial forms and procedure which the law shall establish. The judgment shall always be so drawn as to affect exclusively	Art. 107. All controversies mentioned in Article 103 shall be prosecuted by the injured party in accordance with the judicial forms and procedure which the law shall establish, subject to the following conditions:

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private individuals, and shall confine itself to affording them redress in the special case to which the complaint refers; but it shall make no general statement as to the law or the act that may have formed the basis for the complaint. When the controversy arises through the violation of personal guarantees in a civil suit, recourse may be had to the Federal Courts, only after the said civil suit has duly terminated with a decision which will permit no further legal recourse operating to vacate the said decision. [*As amended November 12, 1908.*]

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I. The judgment shall always be so drawn as to affect exclusively private individuals, and shall confine itself to affording them redress in the special case to which the complaint refers; but it shall make no general statement as to the law or the act that may have formed the basis for the complaint.

II. *In civil or penal suits, excepting those mentioned in Clause IX hereof, the writ of "amparo" shall issue only against final judgments when no other ordinary recourse is available by which these judgments may be modified or amended, if the violation of the law shall have occurred in the judgment, or if, although committed during the course of the trial, objection was duly noted and protest entered against the denial of reparation, and provided further that if committed in first instance it shall have been invoked in second instance as a violation of the law.*

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	Notwithstanding the foregoing provision, the supreme court may in penal cases waive any defects in the petition when there has been a manifest violation of the law which has left the petitioner without recourse, or when he has been tried by a law not strictly applicable to the case, provided failure to take advantage of this violation has been merely an oversight.
	III. *In civil or penal suits the writ of "amparo" shall issue only if substantial portions of the rules of procedure have been violated, and provided further that the said violation shall deprive the petitioner of means of defense.*
	IV. *In addition to the case mentioned in the foregoing paragraph, the writ of "amparo" shall issue only on a final judgment in a civil suit,—provided the requirements set forth in Clause II hereof have been complied with, —when the judgment shall be contrary to the letter of the law applicable to the case or contrary to its legal interpretation, when it includes persons, actions, defenses, or things which have not been the object of the suit, or finally when all these have not been included either through omission or express refusal.*
	When the writ of "amparo" is sought against mesne judgments, in accordance with the provisions of the foregoing clause, these rules shall be observed, as far as applicable.
	V. *In penal suits, the authorities responsible for the violation shall stay the execution of final judgment against which the writ*

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of "amparo" has been sought; for this purpose the petitioner shall, within the period set by law, give notice, under oath, to the said authorities of the interposition of this recourse, accompanying it with two copies of the petition, one of which shall be delivered to the opposing party and the other filed.

VI. *The execution of a final judgment in civil suits shall only be stayed when the petitioner shall give bond to cover damages occasioned thereby, unless the other party shall give a counter bond (1) to guarantee that the normal conditions and relations previously existing be restored, and (2) to pay the corresponding damages, in the event of the granting of the "amparo." In such event the interposition of the recourse of "amparo" shall be communicated as provided in the foregoing clause.*

VII. *If a writ of "amparo" be sought against a final judgment, a certified copy of such portions of the record as the petitioner may desire shall be requested from the authority responsible for the violation; to this there shall be added such portions as the other party may desire and a clear and succinct statement by the said authority of the justification of the act protested; note shall be made of this on the record.*

VIII. *When a writ of "amparo" is sought against a final judgment, the petition shall be brought before the Supreme Court; this petition, together with the copy required by Clause VII, shall be either presented to the Supreme*

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	Court or sent through the authority responsible for the violation or through the District Court of the corresponding State. The Supreme Court shall render judgment without any other formality or procedure than the petition, the document presented by the other party and that of the Attorney General or the Public Attorney he may name in his stead, and shall comprise no other legal question than that contained in the complaint.
	IX. *When the acts of an authority other than the judicial are involved or the acts of the judiciary exercised outside of the suit or after the termination thereof, or acts committed during the suit whose execution is of impossible reparation, or which affect persons not parties to the suit, the writ of "amparo" shall be sought before the District Court within whose jurisdiction is located the place where the act protested was committed or attempted; the procedure in this case shall be confined to the report of the authority and to a hearing, the call for which shall be issued in the same order of the court as that calling for the report. This hearing shall be held at as early a date as possible, the testimony of both parties offered, arguments heard which shall not exceed one hour for each side, and finally the judgment which shall be pronounced at the same hearing. The judgment of the District Court shall be final, if the interested parties do not appeal to the Supreme Court within the period set by law and*

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in the manner prescribed by Clause VIII.

In case of a violation of the guarantees of Articles 16, 19 and 20, recourse shall be had through the appellate court of the court committing the breach or to the corresponding District Court. An appeal against the decision of any of these courts may be taken to the Supreme Court.

If the district judge shall not reside in the same locality as the official guilty of the violation, the judge before whom the petition of "amparo" shall be submitted shall be determined by law; this judge shall be authorized to suspend temporarily the execution of the act protested, in accordance with the terms established by law.

X. *Any official failing to suspend the execution of the act protested, when in duty bound to do so, or when he admits an insufficient or improper bond, shall be turned over to the proper authorities; the civil and penal liablity of the official shall in these cases be a joint liability with the person offering the bond and his surety.*

XI. *If after the granting of an "amparo," the guilty official shall persist in the act or acts against which the petition of "amparo" was filed, or shall seek to render of no effect the judgment of the Federal authority, he shall be forthwith removed from office and turned over for trial to the corresponding district court.*

XII. *Wardens and jailers who fail to receive a duly certified copy of the formal order of commitment within the seventy-two hours*

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	granted by Article 19, reckoned from the time the accused is placed at the disposal of the court, shall bring this fact to the attention of the court, immediately upon expiration of this period; and if the proper order be not received within the next three hours the accused shall be set at liberty. *Any official who shall violate this provision and the article referred to in the foregoing paragraph shall be immediately turned over to the proper authorities. Any official or agent thereof who, after an arrest has been made, shall fail to place the accused at the disposition of the court within the next twenty-four hours shall himself be turned over to the proper authority.* *If the detention be effected outside the locality in which the court is situated, there shall be added to the period mentioned in the preceding sentence the time necessary to travel from the said locality to that where the detention took place.*
TITLE IV *Of the Responsibility of Officials*	TITLE IV *Of the Responsibility of Officials*
Art. 103. Senators, representatives, justices of the supreme court, and secretaries of executive departments shall be liable for the common offenses committed by them during their term of office, and for their crimes, misdemeanors, or omissions in the exercise of their functions. The governors of the States shall also be responsible for the violation of the Federal Constitu-	Art. 108. Senators and Representatives of Congress, Justices of the Supreme Court, Secretaries of Executive Departments *and the Attorney General of the Republic* shall be liable for all common offenses committed during their term of office, as well as for all official offenses or acts of commission or omission in which they may incur in the discharge of their duties.

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tion and laws. The President of the Republic shall be likewise responsible; but during his term he can be charged only with treason **express violation of the Constitution, attacks on electoral liberty,** and grave common offenses. [*As amended May 6, 1904.*]	Governors of States and *members of State Legislatures* shall be liable for violation of the Constitution and the Federal Laws. The President of the Republic may only be impeached during his term of office for high treason and common offenses of a serious character.
No constitutional privilege shall be extended to any high Federal functionary when tried for official offenses, misdemeanors, or omissions committed by him in the discharge of any public function or commission, during the time in which, according to law, the privilege is enjoyed. This provision shall be applicable to cases of common offenses committed under the same circumstances. In order that the proceedings may be instituted when the functionary returns to the exercise of his own functions, the rules set forth in Article 104 of the Constitution shall be observed.	**[Identical with Art. 110 of 1917.]**
Art. 104. If the offense belongs to the common order the House of Representatives, acting as a grand jury, shall determine by a majority vote whether there is or is not any ground for proceeding against the accused. If the finding be favorable to the accused, no further action shall be taken. If the finding be adverse, the accused shall *ipso facto* be removed from office and be placed at the disposition of the ordinary courts of justice. [*As amended November 13, 1874.*]	Art. 109. If the offense belongs to the common order the House of Representatives, acting as a grand jury, shall determine by a majority vote of *its total membership* whether there is or is not any ground for proceeding against the accused. If the finding be favorable to the accused, no further action shall be taken; *but such finding shall not be a bar to the prosecution of the charge so soon as the constitutional privilege shall cease, since the finding of the House does not in any way determine the merits of the charge.*

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Art. 105. In cases of impeachment the House of Representatives shall act as a grand jury and the Senate as a tribunal.

The grand jury shall decide by a majority vote if the accused is or is not to be impeached. If the decision is favorable to the accused official, the latter shall continue in the exercise of his functions. If it is adverse, the accused official shall be immediately removed from office and put at the disposal of the Senate. The Senate, acting as a tribunal, shall, upon the proper hearing of the defendant, and also of the plaintiff, if there be any, by a majority vote impose the penalty provided by law. [*As amended November 13, 1874.*]

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If the finding be adverse, the accused shall *ipso facto* be removed from office and be placed at the disposition of the ordinary courts of justice, *except in the case of the President of the Republic, who may only be impeached before the Senate, as in the case of an official offense.*

Art. 111. The Senate acting as a grand jury shall try all cases of impeachment; but it may not institute such proceedings without a previous accusation brought by the House of Representatives.

If the Senate should, after hearing the accused and conducting such proceedings as it may deem advisable, determine by a majority vote of two-thirds of its total membership that the accused is guilty, the latter shall be forthwith removed from office by virtue of such decision, or be disqualified from holding any other office for such time as the law may determine.

When the same offense is punishable with an additional penalty, the accused shall be placed at the disposition of the regular authorities who shall judge and sentence him in accordance with the law.

In all cases embraced by this article and in those included by the preceding both the decisions of the Grand Jury and the findings of the House of Representatives shall be final.

Any person shall have the right to denounce before the House of Representatives offenses of a common order or of

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	an official character committed by high Federal functionaries; and whenever the said House of Representatives shall determine that there exist good grounds for impeachment proceedings before the Senate, it shall name a committee from among its own members to sustain the charges brought. The Congress shall as soon as possible enact a law as to the responsibility of all Federal officials and employees which shall fix as official offenses all acts, of commission or omission, which may prejudice the public interest and efficient administration, even though such acts may not heretofore have been considered offenses. These officials shall be tried by a jury in the same manner as provided for trials by jury in Article 20.
Art. 106. No pardon shall be granted the offender in cases of impeachment.	Art. 112. **[Identical]**
Art. 107. The responsibility for official breaches and offenses may only be enforced during such time as the functionary shall remain in office and for one year thereafter.	Art. 113. **[Identical]**
Art. 108. In civil cases no privilege or immunity in favor of any public functionary shall be recognized.	Art. 114. **[Identical]**
TITLE V *Of the States of the Federation*	TITLE V *Of the States of the Federation*
Art. 109. The States shall adopt for their internal government the popular, representa-	Art. 115. The States shall adopt for their internal government the popular, representa-

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tive, republican form of government. The term of office in the case of Governors shall not exceed six years. The prohibitions on the President, Vice President and President ad interim, referred to in Article 78, shall be applicable to State Governors and functionaries acting in their stead. [*As amended November 27, 1911.*]

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tive, republican form of government; *they shall have as the basis of their territorial division and political and administrative organization the free municipality, in accordance with the following provisions:*

I. *Each municipality shall be administered by a town council chosen by direct vote of the people, and no authority shall intervene between the municipality and the State Government.*

II. *The municipalities shall freely administer their own revenues which shall be derived from the taxes fixed by the State Legislatures which shall at all times be sufficient to meet their needs.*

III. *The municipalities shall be regarded as enjoying corporate existence for all legal purposes.*

The Federal Executive and the State Governors shall have command over all public forces of the municipalities wherein they may permanently or temporarily reside.

Constitutional State Governors shall not be re-elected, nor shall their term of office exceed *four* years.

The prohibitions of Article 83 are applicable to substitute or ad interim governors.

The number of Representatives in the State Legislatures shall be in proportion to the inhabitants of each State, but in no case shall the number of representatives in any State Legislature be less than fifteen.

Each electoral district of the States shall choose a Representa-

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	tive and an alternate to the State Legislature. *Every State Governor shall be a Mexican citizen by birth and a native thereof, or resident therein not less than five years immediately prior to the day of election.*
Art. 110. The States shall have the power to fix among themselves, by friendly agreements, their respective boundaries; but these agreements shall not be carried into effect without the approval of the Congress.	Art. 116. **[Identical]**
Art. 111. No State shall—	Art. 117.
I. Enter into alliances, treaties or coalitions with another State or with foreign powers. **Coalitions between frontier States for offensive or defensive war against savage Indians are excepted.**	I. Enter into alliances, treaties or coalitions with another State or with foreign powers.
II. Grant letters of marque or reprisal.	II. **[Identical]**
III. Coin money, issue paper money, stamps or stamped paper. [*As amended May 1, 1896.*]	III. **[Identical]**
IV. Levy taxes on persons or property passing through its territory. [*As amended May 1, 1896.*]	IV. **[Identical]**
V. Prohibit or tax, directly or indirectly, the entry into its territory, or the withdrawal therefrom, of any merchandise, foreign or domestic. [*As amended May 1, 1896.*]	V. **[Identical]**
VI. Burden the circulation or consumption of domestic or foreign merchandise with taxes or duties to be collected by local custom houses or subject to inspection the said merchandise or require it to be accompanied	VI. **[Identical]**

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by documents. [*As amended May 1, 1896.*]	
VII. Enact or maintain in force laws or fiscal regulations discriminating, by taxation or otherwise, between merchandise, foreign or domestic, on account of its origin, whether this discrimination be established with regard to similar local products or to similar products of foreign origin. [*As amended May 1, 1896.*]	VII. **[Identical]**
VIII. Issue bonds of the public debt payable in foreign coin or outside the Federal territory; contract loans, directly or indirectly, with any foreign government, or assume any obligation in favor of any foreign corporation or individual, requiring the issuance of certificates or bonds payable to bearer or negotiable by endorsement. [*As amended December 18, 1901.*]	VIII. Issue bonds of the public debt payable in foreign coin or outside the Federal territory; contract loans, directly or indirectly, with any foreign government, or assume any obligation in favor of any foreign corporation or individual, requiring the issuance of certificates or bonds payable to bearer or negotiable by endorsement. *The Federal Congress and the State Legislatures shall forthwith enact laws against alcoholism.*
Art. 112. No State shall, without the consent of the Congress: I. Establish tonnage dues or other port charges, or impose taxes or other duties upon imports or exports. II. Keep at any time permanent troops or vessels of war. III. Make war on its own behalf on any foreign power, except in cases of invasion or of such imminent peril as to admit of no delay. In such event the State shall give notice immediately to the President of the Republic.	Art. 118. **[Identical, except that heading III is omitted.]**

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Art. 113. Every State shall be bound to deliver without delay to the demanding authorities the fugitives from justice from other States or from foreign nations.	Art. 119. Every state shall be bound to deliver without delay to the demanding authorities the fugitives from justice from other States or from foreign nations. *In such cases the writ of the court granting the extradition shall operate as a sufficient warrant for the detention of the accused for one month, in the case of extradition from one State to another, and for two months in the case of international extradition.*
Art. 114. The State Governors are bound to publish and enforce the Federal laws.	Art. 120. **[Identical]**
Art. 115. Full faith and credit shall be given in each State of the Federation to the public acts, records and judicial proceedings of all the other States. The Congress shall by general laws prescribe the manner of proving the said acts, records and proceedings and the effect thereof.	Art. 121. Full faith and credit shall be given in each State of the Federation to the public acts, records and judicial proceedings of all the other States. The Congress shall by general laws prescribe the manner of proving the said acts, records and proceedings and the effect thereof. I. *The laws of a State shall only be binding within its own confines, and shall therefore have no extra-territorial force.* II. *Movable and immovable property shall be governed by the lex sitae.* III. *Judgments of a State court as to property and property rights situated in another State shall only be binding when expressly so provided by the law of the latter State.* *Judgments relating to personal rights shall only be binding in another State provided the person shall have expressly, or impliedly*

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	by reason of domicile, submitted to the jurisdiction of the court rendering such judgment, and provided further that personal service shall have been secured. IV. *All acts of civil status performed in accordance with the laws of one State shall be binding in all other States.* V. *All professional licenses issued by the authorities of one State in accordance with its laws shall be valid in all other States.*
Art. 116. The Powers of the Union are bound to protect the States against all invasion or external violence. In case of insurrection or internal disturbance they shall give them the same protection, provided the Legislature of the State, or the Executive thereof if the Legislature is not in session, shall so request.	Art. 122. **[Identical]**
	TITLE VI *Of Labor and Social Welfare* Art. 123. *The Congress and the State Legislatures shall make laws relative to labor with due regard for the needs of each region of the Republic, and in conformity with the following principles, and these principles and laws shall govern the labor of skilled and unskilled workmen, employees, domestic servants and artisans, and in general every contract of labor.* I. *Eight hours shall be the maximum limit of a day's work.* II. *The maximum limit of night work shall be seven hours. Unhealthy and dangerous occupations are forbidden to all*

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women and to children under sixteen years of age. Night work in factories is likewise forbidden to women and to children under sixteen years of age; nor shall they be employed in commercial establishments after ten o'clock at night.

III. *The maximum limit of a day's work for children over twelve and under sixteen years of age shall be six hours. The work of children under twelve years of age shall not be made the subject of a contract.*

IV. *Every workman shall enjoy at least one day's rest for every six days' work.*

V. *Women shall not perform any physical work requiring considerable physical effort during the three months immediately preceding parturition; during the month following parturition they shall necessarily enjoy a period of rest and shall receive their salaries or wages in full and retain their employment and the rights they may have acquired under their contracts. During the period of lactation they shall enjoy two extraordinary daily periods of rest of one-half hour each, in order to nurse their children.*

VI. *The minimum wage to be received by a workman shall be that considered sufficient, according to the conditions prevailing in the respective region of the country, to satisfy the normal needs of the life of the workman, his education and his lawful pleasures, considering him as the head of a family. In all agricultural, commercial, manufacturing or mining*

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	enterprises the workmen shall have the right to participate in the profits in the manner fixed in Clause IX of this article.
	VII. *The same compensation shall be paid for the same work, without regard to sex or nationality.*
	VIII. *The minimum wage shall be exempt from attachment, set-off or discount.*
	IX. *The determination of the minimum wage and of the rate of profit-sharing described in Clause VI shall be made by special commissions to be appointed in each municipality and to be subordinated to the Central Board of Conciliation to be established in each State.*
	X. *All wages shall be paid in legal currency and shall not be paid in merchandise, orders, counters or any other representative token with which it is sought to substitute money.*
	XI. *When owing to special circumstances it becomes necessary to increase the working hours, there shall be paid as wages for the overtime one hundred per cent more than those fixed for regular time. In no case shall the overtime exceed three hours nor continue for more than three consecutive days; and no women of whatever age nor boys under sixteen years of age may engage in overtime work.*
	XII. *In every agricultural, industrial, mining or other class of work employers are bound to furnish their workmen comfortable and sanitary dwelling-places, for which they may charge rents not*

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	exceeding one-half of one per cent per month of the assessed value of the properties.[19] *They shall likewise establish schools, dispensaries and other services necessary to the community. If the factories are located within inhabited places and more than one hundred persons are employed therein, the first of the above-mentioned conditions shall be complied with.*
	XIII. *Furthermore, there shall be set aside in these labor centers, whenever their population exceeds two hundred inhabitants, a space of land not less than five thousand square meters for the establishment of public markets, and the construction of buildings designed for municipal services and places of amusement. No saloons nor gambling houses shall be permitted in such labor centers.*
	XIV. *Employers shall be liable for labor accidents and occupational diseases arising from work; therefore, employers shall pay the proper indemnity, according to whether death or merely temporary or permanent disability has ensued, in accordance with the provisions of law. This liability shall remain in force even though the employer contract for the work through an agent.*
	XV. *Employers shall be bound to observe in the installation of their establishments all the provisions of law regarding hygiene and sanitation and to adopt adequate measures to prevent accidents due to the use of machinery, tools and working materials, as well as to organize work in such a*

[19] *See* Art. 27, Clause VII, second paragraph of 1917.

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	manner as to assure the greatest guarantees possible for the health and lives of workmen compatible with the nature of the work, under penalties which the law shall determine.
	XVI. *Workmen and employers shall have the right to unite for the defense of their respective interests, by forming syndicates, unions, etc.*
	XVII. *The law shall recognize the right of workmen and employers to strike and to lockout.*
	XVIII. *Strikes shall be lawful when by the employment of peaceful means they shall aim to bring about a balance between the various factors of production, and to harmonize the rights of capital and labor. In the case of public services, the workmen shall be obliged to give notice ten days in advance to the Board of Conciliation and Arbitration of the date set for the suspension of work. Strikes shall only be considered unlawful when the majority of the strikers shall resort to acts of violence against persons or property, or in case of war when the strikers belong to establishments and services dependent on the government. Employees of military manufacturing establishments of the Federal Government shall not be included in the provisions of this clause, inasmuch as they are a dependency of the national army.*
	XIX. *Lockouts shall only be lawful when the excess of production shall render it necessary to shut down in order to maintain prices reasonably above the cost of production, subject to the approval of the Board of Conciliation and Arbitration.*

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XX. *Differences or disputes between capital and labor shall be submitted for settlement to a board of conciliation and arbitration to consist of an equal number of representatives of the workmen and of the employers and of one representative of the Government.*

XXI. *If the employer shall refuse to submit his differences to arbitration or to accept the award rendered by the Board, the labor contract shall be considered as terminated, and the employer shall be bound to indemnify the workman by the payment to him of three months' wages, in addition to the liability which he may have incurred by reason of the dispute. If the workman reject the award, the contract will be held to have terminated.*

XXII. *An employer who discharges a workman without proper cause or for having joined a union or syndicate or for having taken part in a lawful strike shall be bound, at the option of the workman, either to perform the contract or to indemnify him by the payment of three months' wages. He shall incur the same liability if the workman shall leave his service on account of the lack of good faith on the part of the employer or of maltreatment either as to his own person or that of his wife, parents, children or brothers or sisters. The employer cannot evade this liability when the maltreatment is inflicted by subordinates or agents acting with his consent or knowledge.*

XXIII. *Claims of workmen for salaries or wages accrued during the past year and other in-*

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	demnity claims shall be preferred over any other claims, in cases of bankruptcy or composition.
	XXIV. *Debts contracted by workmen in favor of their employers or their employers' associates, subordinates or agents, may only be charged against the workmen themselves and in no case and for no reason collected from the members of his family. Nor shall such debts be paid by the taking of more than the entire wages of the workman for any one month.*
	XXV. *No fee shall be charged for finding work for workmen by municipal offices, employment bureaus or other public or private agencies.*
	XXVI. *Every contract of labor between a Mexican citizen and a foreign principal shall be legalized before the competent municipal authority and viséed by the consul of the nation to which the workman is undertaking to go, on the understanding that, in addition to the usual clauses, special and clear provisions shall be inserted for the payment by the foreign principal making the contract of the cost to the laborer of repatriation.*
	XXVII. *The following stipulations shall be null and void and shall not bind the contracting parties, even though embodied in the contract:*
	(*a*) *Stipulations providing for inhuman day's work on account of its notorious excessiveness, in view of the nature of the work.*
	(*b*) *Stipulations providing for a wage rate which in the judgment of the Board of Conciliation and Arbitration is not remunerative.*

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(*c*) *Stipulations providing for a term of more than one week before the payment of wages.*

(*d*) *Stipulations providing for the assigning of places of amusement, eating places, cafes, taverns, saloons or shops for the payment of wages, when employees of such establishments are not involved.*

(*e*) *Stipulations involving a direct or indirect obligation to purchase articles of consumption in specified shops or places.*

(*f*) *Stipulations permitting the retention of wages by way of fines.*

(*g*) *Stipulations constituting a waiver on the part of the workman of the indemnities to which he may become entitled by reason of labor accidents or occupational diseases, damages for breach of contract, or for discharge from work.*

(*h*) *All other stipulations implying the waiver of any right vested in the workman by labor laws.*

XXVIII. *The law shall decide what property constitutes the family patrimony. These goods shall be inalienable and shall not be mortgaged, nor attached, and may be bequeathed with simplified formalities in the succession proceedings.*

XXIX. *Institutions of popular insurance*[20] *established for old age, sickness, life, unemployment, acci-*

[20] In the desire to adhere as closely as possible to the original, the term "popular insurance" has been used. It would seem, however, that in making use of the expression "*Seguros Populares,*" it was intended to convey the full connotation of the term "Social Insurance." (*See* "Social Insurance," Seager, 1910.)

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	dent and others of a similar character, are considered of social utility; the Federal and State Governments shall therefore encourage the organization of institutions of this character in order to instill and inculcate popular habits of thrift.
	XXX. *Coöperative associations for the construction of cheap and sanitary dwelling houses for workmen shall likewise be considered of social utility whenever these properties are designed to be acquired in ownership by the workmen within specified periods.*
TITLE VI	TITLE VII
Of General Provisions	*Of General Provisions*
Art. 117. All powers not expressly vested by this Constitution in the Federal authorities are understood to be reserved to the States.	Art. 124. **[Identical]**
Art. 118. No person shall hold at the same time two Federal offices or one Federal and one State elective office; if elected to two, he shall choose between them.	Art. 125. **[Identical]**
Art. 119. No payment shall be made which is not included in the budget or authorized by a law subsequent to the same.	Art. 126. **[Identical]**
Art. 120. The President of the Republic, the Justices of the Supreme Court, Representatives and other public officials of the Federation who are chosen by popular election shall receive a compensation for their services, which shall be paid by the Federal Treasury and deter-	Art. 127. The President of the Republic, the Justices of the Supreme Court, Representatives *and Senators* and other public officials of the Federation who are chosen by popular election shall receive a compensation for their services, which shall be paid by the Federal Treasury

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mined by law. This compensation may not be waived, and any law increasing or decreasing it shall have no effect during the period for which the functionary holds office.	and determined by law. This compensation may not be waived, and any law increasing or decreasing it shall have no effect during the period for which the functionary holds office.
Art. 121. Every public official, without exception, shall, before entering on the discharge of his duties, take an oath to maintain this constitution and the laws arising hereunder.	Art. 128. Every public official, without exception, shall, before entering on the discharge of his duties, make an *affirmation* to maintain this constitution and the laws arising thereunder.
Art. 122. In time of peace no military authorities shall exercise other functions than those bearing direct relation to military discipline. No permanent military posts shall be established other than in castles, forts and arsenals depending directly upon the Federal Government, or in camps, barracks, or depots, established outside of inhabited places for the stationing of troops.	Art. 129. **[Identical]**
Art. 123. The Federal authorities shall have **exclusive** power to exercise, in matters of religious worship and outward ecclesiastic forms, such intervention as by law authorized.	Art. 130. The Federal authorities shall have power to exercise in matters of religious worship and outward ecclesiastical forms such intervention as by law authorized. All other officials shall act as auxiliaries to the Federal authorities.
Article 1. The church and the state are independent of each other. Congress shall not enact laws establishing or forbidding any religion.	The Congress shall not enact any law establishing or forbidding any religion whatsoever.
Art. 2. Marriage is a civil contract. Marriage and all other acts relating to the civil status of persons shall appertain to the exclusive jurisdiction of the civil authorities in the manner and form provided by law,	Marriage is a civil contract. Marriage and all other acts relating to the civil status of individuals shall appertain to the exclusive jurisdiction of the civil authorities in the manner and form by law provided, and they

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and they shall have the force and validity given to them by said laws.

Art. 3. No religious institutions shall acquire real estate or capital secured by mortgage on the same, except only in the case set forth in article 27 of the Constitution.

Art. 4. A simple promise to tell the truth and to comply with obligations entered into, shall take the place of the religious oath with all its effects and penalties. [*Articles 1–4 are amendments of September 25, 1873.*]

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shall have the force and validity given them by said laws.

A simple promise to tell the truth and to comply with obligations contracted shall subject the promisor, in the event of a breach, to the penalties established therefor by law.

The law recognizes no juridical personality in the religious institutions known as churches.

Ministers of religious creeds shall be considered as persons exercising a profession, and shall be directly subject to the laws enacted on the matter.

The State legislatures shall have the exclusive power of determining the maximum number of ministers of religious creeds, according to the needs of each locality. Only a Mexican by birth may be a minister of any religious creed in Mexico.

No ministers of religious creeds shall, either in public or private meetings, or in acts of worship or religious propaganda, criticise the fundamental laws of the country, the authorities in particular or the Government in general; they shall have no vote, nor be eligible to office, nor shall they be entitled to assemble for political purposes.

Before dedicating new temples of worship for public use, permission shall be obtained from the Department of the Interior (Gobernacion); the opinion of the Governor of the respective State shall be previously heard on the subject. Every place of worship shall have a person charged with its care and maintenance, who shall be legally responsible for

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the faithful performance of the laws on religious observances within the said place of worship, and for all the objects used for purposes of worship.

The caretaker of each place of public worship, together with ten citizens of the place, shall promptly advise the municipal authorities as to the person charged with the care of the said place of worship. The outgoing minister shall in every instance give notice of any change, for which purpose he shall be accompanied by the incoming minister and ten other citizens of the place. The municipal authorities, under penalty of dismissal and fine, not exceeding 1,000 pesos for each breach, shall be responsible for the exact performance of this provision; they shall keep a register of the places of worship and another of the caretakers thereof, subject to the same penalty as above provided. The municipal authorities shall likewise give notice to the Department of the Interior through the State Governor, of any permission to open to the public use a new place of worship, as well as of any change in the caretakers. Gifts of personalty may be received in the interior of places of public worship.

Under no conditions shall studies carried on in institutions devoted to the professional training of ministers of religious creeds be given credit or granted any other dispensation of privilege which shall have for its purpose the accrediting of the said studies in official institutions. Any au-

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	thority violating this provision shall be punished criminally, and all such dispensation of privilege be null and void, and shall invalidate wholly and entirely the professional degree toward the obtaining of which the infraction of this provision may in any way have contributed.
	No periodical publication which either by reason of its program, its title or merely by its general tendencies, is of a religious character, shall comment upon any political affairs of the nation, nor publish any information regarding the acts of the authorities of the country or of private individuals, in so far as the latter have to do with public affairs.
	Every kind of political association whose name shall bear any word or any indication relating to any religious belief is hereby strictly forbidden. No assemblies of any political character shall be held within places of public worship.
	No minister of any religious creed may inherit, either on his own behalf or by means of a trustee or otherwise, any real property occupied by any association of religious propaganda or religious or charitable purposes. Ministers of religious creeds are incapable legally of inheriting by will from ministers of the same religious creed or from any private individual to whom they are not related by blood within the fourth degree.
	All real and personal property pertaining to the clergy or to religious institutions shall be governed, in so far as their acquisition by private parties is concerned, in

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	conformity with Article 27 of this Constitution. *No trial by jury shall ever be granted for the infraction of any of the preceding provisions.*
Art. 124. The Federal Government shall have exclusive power to levy duties on merchandise imported, exported or passing in transit through the national territory, as well as to regulate at all times, and if necessary to forbid for the sake of public safety or for police reasons, the circulation in the interior of the Republic of all kinds of goods, regardless of their origin; but the Federal Government shall have no power to establish or decree in the Federal District and Territories the taxes and laws to which Clauses VI and VII of Article iii refer. [*As amended May 1, 1896.*]	Art 131. **[Identical, with exception of the references which in the 1917 text are to "Clauses VI and VII of Art. 117."]**
Art. 125. All forts, barracks, warehouses, and other real property, destined by the Federal Government for public service or common use, shall be under the jurisdiction of the Federal authorities, in accordance with the law which the Congress shall issue on the subject; any of these establishments which may subsequently be acquired within the territory of any State shall likewise be subject to Federal jurisdiction, provided consent thereto shall have been obtained from the respective State legislature. [*As amended October 31, 1901.*]	Art. 132. **[Identical]**
Art. 126. This Constitution and the laws of the United	Art. 133. **[Identical]**

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States of Mexico which shall be made in pursuance hereof and all treaties made or which shall be made under the authority of the President of the Republic, with the approval of the Congress, shall be the supreme law of the land. And the judges in every State shall be bound by this Constitution and by these laws and treaties, anything in the Constitution or laws of any State to the contrary notwithstanding.	
	Art. 134. *Bids shall be called for on all contracts which the Government may have occasion to enter into for the execution of any public works; these bids shall be submitted under seal and shall only be opened publicly.*
TITLE VII	TITLE VIII
Of the Amendments to the Constitution	*Of the Amendments to the Constitution*
Art. 127. The present Constitution may be added to or amended. No amendment or addition shall become part of the Constitution until agreed to by the Congress of the Union by a two-thirds vote of the members present and approved by a majority of the State legislatures. The Congress shall count the votes of the legislatures and make the declaration that the amendments or additions have been adopted.	Art. 135. **[Identical]**

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TITLE VIII

Of the Inviolability of the Constitution

Art. 128. This Constitution shall not lose its force and vigor, even though its observance be interrupted by rebellion. In case that through any public disturbance a Government contrary to the principles which it sanctions be established, its force shall be restored so soon as the people shall regain their liberty, and those who have participated in the Government emanating from the rebellion or have cooperated with it shall be tried in accordance with its provisions and with the laws arising under it.

TRANSITORY ARTICLE

The present Constitution shall be published at once and sworn to with the greatest solemnity throughout the whole Republic; but its provisions, except those relating to the election of the supreme powers, Federal and State, shall not go into effect until the sixteenth of September next, when the First Congress, under the Constitution, shall meet. On and after that date the President of the Republic and the justices of the supreme court, who shall continue in the exercise of their functions until their successors are constitutionally elected and enter into the discharge of their duties, shall act in strict accordance with the provisions of this Constitution.

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TITLE IX

Of the Inviolability of the Constitution

Art. 136. **[Identical]**

TRANSITORY ARTICLES

Article 1. This Constitution shall be published at once and a solemn affirmation made to defend and enforce it throughout the Republic; but its provisions, except those relating to the election of the supreme powers, Federal and State, shall not go into effect *until the first day of May, 1917, at which time the Constitutional Congress shall be solemnly convened and the oath of office taken by the citizen chosen at the forthcoming elections to discharge the duties of President of the Republic.*

The provisions of Clause V of Article 82 shall not be applicable in the elections to be called in accordance with Article 2 of the Transitory Articles, nor shall active service in the army act as a

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Given at the Hall of sessions of Congress in the City of Mexico on the fifth of February, eighteen hundred and fifty-seven, the thirty-seventh of the Independence.

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disqualification for the office of representative or senator, provided the candidate shall not have active command of troops in the respective electoral district.

Nor shall the secretaries nor assistant secretaries of executive departments be disqualified from election to the next Federal Congress, provided they shall definitively resign from office on or before the day on which the respective call is issued.

Art. 2. *The person charged with the executive power of the Nation shall immediately, upon the publication of this Constitution, call for elections to fill the Federal offices; he shall see that these elections be held so that Congress may be constituted within a reasonable time, in order that it may count the votes cast in the presidential elections and make known the name of the person who has been elected President of the Republic; this shall be done in order that the provisions of the foregoing article may be complied with.*

Art. 3. *The next constitutional term shall be computed, in the case of Senators and Representatives, from the first of September last, and in the case of the President of the Republic, from the first of December, 1916.*

Art. 4. *Senators who in the coming election shall be classified as "even" shall serve only two years, in order that the Senate may be renewed by half every two years.*

Art. 5. *The Congress shall in the month of May next choose the Justices of the Supreme Court in*

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order that this tribunal may be constituted on the first day of June, 1917.

In these elections, Article 96 shall not govern in so far as the candidates proposed by the State Legislatures are concerned; but those chosen shall be designated for the first term of two years prescribed by Article 94.

Art. 6. *The Congress shall meet in extraordinary session on the fifteenth day of April, 1917, to act as an electoral college, for the computing of the ballots and the determination of the election of President of the Republic, at which time it shall make known the results; it shall likewise enact the organic law of the Circuit and District Courts, the organic law of the Tribunals of the Federal District and Territories, in order that the Supreme Court of Justice may immediately appoint the Inferior and Superior District and Circuit Judges; at the same session the Congress shall choose the Superior Judges and Judges of First Instance of the Federal District and Territories, and shall also enact all laws submitted by the Executive. The Circuit and District Judges and the Superior and Inferior Judges of the Federal District and Territories shall take office not later than the first day of July, 1917, at which time such as shall have been temporarily appointed by the person now charged with the executive power of the nation shall cease to act.*

Art. 7. *For this occasion only, the votes for the office of Senator shall be counted by the Board of the First Electoral District of each*

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	State or of the Federal District which shall be instituted for the counting of the votes of Representatives. This Board shall issue the respective credentials to the Senators-elect.
	Art. 8. *The Supreme Court shall decide all pending petitions of "amparo," in accordance with the laws at present in force.*
	Art. 9. *The First Chief of the Constitutionalist Army, charged with the executive power of the Nation, is hereby authorized to issue the electoral law according to which, on this occasion, the elections to fill the various Federal offices shall be held.*
	Art. 10. *All persons who shall have taken part in the Government emanating from the rebellion against the legitimate government of the Republic, or who may have given aid to the said rebellion and later taken up arms or held any office or commission of the factions which have opposed the constitutionalist government, shall be tried in accordance with the laws at present in force, unless they shall have been previously pardoned by the said constitutionalist government.*
	Art. 11. *Until such time as the Congress of the Union and the State Legislatures shall legislate on the agrarian and labor problems, the bases established by this Constitution for the said laws shall be put into force throughout the Republic.*
	Art. 12. *All Mexicans who shall have fought in the ranks of the constitutionalist army and their children and widows and all other persons who shall have*

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rendered service to the cause of the revolution, or to public instruction, shall be preferred in the acquisition of lots to which Article 27 refers, and shall be entitled to such rebates as the law shall determine.

Art. 13. *All debts contracted by working men on account of work up to the date of this Constitution with masters, their subordinates and agents, are hereby declared wholly and entirely discharged.*

Art. 14. *The Departments of Justice and of Public Instruction and Fine Arts are hereby abolished.*

Art. 15. *The citizen at present charged with the executive power is hereby authorized to issue the law of civil responsibility applicable to all promoters, accomplices and abettors of the offenses committed against the constitutional order in the month of February, 1913, and against the Constitutionalist Government.*

Art. 16. *The Constitutional Congress in the regular period of sessions, to begin on the first day of September of the present year, shall issue all the organic laws of the Constitution which may not have been already issued in the extraordinary session to which Transitory Article number 6 refers; and it shall give preference to the laws relating to personal guarantees and to Articles 30, 32, 33, 35, 36, 38, 107 and the latter part of Article 111 of this Constitution.*

Signed at Querétaro de Arteaga, January 31, 1917.

NOTES

Art. 3, Line 2—secular. It should be noted in this connection that public instruction imparted in the public schools of Mexico for the past thirty years has been largely dominated by the positivist theories of Auguste Comte, as applied by Dr. Gabino Barrera, a noted Mexican educator.

Art. 3, Line 2—primary. The educational system in Mexico is patterned in the main after the French. There are, accordingly, no high schools as these exist in the United States. Primary instruction is regulated by the federal government in the federal district and territories and by the states, and is generally subdivided into lower ("*elemental*") covering four years and higher ("*superior*"), comprising the fifth and sixth years. From here pupils graduate to the "Escuela Nacional Preparatoria"—an institution whose curriculum embraces high school and collegiate studies as given in the United States—prior to entering the professional schools of law, medicine, engineering, etc.

Art. 21, Line 4 and Art. 73, VI, 5—Public Attorney "Ministerio Público." As it exists today, this institution dates back to the fourteenth century. Its duty is to see that the law is carried out, and it is, theoretically at least, independent of the judiciary. An important characteristic is that it does not require, as in the common law, any indictment or complaint before acting. Its most important function is in criminal cases where it is bound to prosecute all criminal offences, excepting only certain offences of a personal nature, such as slander, adultery, etc. In civil suits, its powers are more restricted and discretionary, although it is called upon to intervene in cases involving status, minors, bankruptcies, etc. In a word, it represents society.

Art. 24, Line 7—discharging in one instance. This ancient practice differed from the Scottish verdict of "not proven," where only moral stigma attached, in that a reasonable presumption of guilt in first instance rendered the accused liable to a second trial if further evidence developed later.

Art. 27, Line 6—Public Utility. While the term "public utility" may be somewhat misleading, it is felt that "public use" may be even more so. The same expression ("*Por causa de utilidad pública*") is to be found in the 1857 Constitution, and has always been interpreted by the courts of Mexico in the sense of public *interest*, as in the case of land expropriated for the surface work of a mine, etc.

Owing to the importance that may attach to the changes made in the 1917 text, the original Spanish in each case is given:

"Art. 27. *La propiedad de las personas no puede ser ocupada sin su consentimiento, sino por causa de utilidad pública y previa indemnización*" (1857).

"Art. 27. . . . *Esta (la propiedad privada) no podrá ser expropiada sino por causa de utilidad pública y mediante indemnización*" (1917).

Art. 27, Line 28—Decree of January 6, 1915. This decree, promulgated by Carranza under this date, declares null and void all alienations of lands, waters and forests made by the Mexican government or any inferior authorities thereof after December 1, 1876 which shall have illegally comprised properties formerly belonging to, or occupied by, Indian communal settlements. The decree further grants these settlements the right to demand the restoration of these properties, and provides that the case be heard before the agrarian commissions or other administrative authorities, without any judicial recourse whatsoever, except only to demand the payment of an indemnity, in case the decision ordering such restoration be later invalidated by the courts.

Art. 27, I, Line 13—Zone. The principle restricting the right of foreigners to acquire real property within certain zones dates back many years and has found expression in several legislative enactments, among others the Mining Law of which went into effect on January 1, 1910. The text of the 1917 Constitution broadens considerably the scope of these limitations. The general rule hitherto obtaining in Mexico had been that foreigners might acquire real property within the prohibited zones on obtaining special permission from the executive; but the new constitutional provision establishes a principle of absolute prohibition.

Art. 27, III, Line 11—dependents. The word in the original ("*asimilados*") would certainly cover the English term tertiaries, or members of the third or worldly orders, Franciscan, Dominican, etc.; but it is apparently sufficiently sweeping to embrace societies of the laity not necessarily bound by religious vows, as for instance, the Knights of Columbus in the United States, and even persons serving in any religious ceremony, such as acolytes, etc.

Art. 27, VII, Line 38—Law of June 25, 1856. This measure is known as the "disamortization law." It provided for the taking of the numerous real properties (landed estates, buildings, etc.) belonging to convents and other religious communities, Indian settlements, etc., and their disposition among private individuals. This was effected in various ways, as for example by adjudicating these properties among the tenants, who were, however, held to acknowledge an indebtedness for their value and to pay the prior owner an annual interest, with the right of redemption. In the absence of a tenant, the properties were auctioned and the purchaser assumed an obligation in favor of the owner, as in the preceding case. The law in question contained many other provisions, but these suffice to show the important place it occupies in the law of real property in Mexico.

Art. 27, VII (f). Although this section embodies principles very similar to the "homestead" laws, it has not been deemed advisable to use this expression. The juridical conception of the "homestead" has no exact replica in the civil law, while the analogous term "patrimonium" embraces more than the common law "homestead."

Art. 27, VII, Line 6—1876. This year marks the beginning of the first presidential term of General Porfirio Diaz, which brought the first large influx of foreign capital.

Art. 33 of 1917. This wording follows the underlying principles of the 1857 Constitution, with the important change of the class of aliens affected. By the 1857 Constitution expulsion was possible only in the case of "undesirable" ("*perniciosos*") aliens, while the 1917 text makes the provision applicable to any alien whose presence the executive may deem "inexpedient" ("*inconveniente*").

Art. 72, XXIV—Office of the Comptroller of the Treasury. The "Contaduría Mayor," established by the act of June 6, 1904, is a bureau directly dependent upon the House of Representatives. Its purpose is to examine and audit the accounts submitted by the Treasurer of the Nation. The office extends its audit even to the acts of secretaries of executive departments, in matters pertaining to the expenditure of public funds. If it is proved that the expenditure was authorized and legally made, the "Contaduría Mayor" releases the official from all liability thereunder; if not, it is incumbent upon it to advise the proper functionary so that the corresponding liability may be exacted. The House of Representatives finally passes upon all governmental expenditures, on the basis of the report submitted by the "Contaduría Mayor."

Art. 107—Amparo. This unique feature of Mexican jurisprudence combines the essential elements of the extraordinary writs of *habeas corpus, certiorari and mandamus.* It is a federal procedure designed to give immediate redress when any of the fundamental rights of man are infringed by any authority, irrespective of category, or to excuse the obedience of a law or decree which has invaded the federal or local sphere. Its use is most extensive, embracing minors, persons absent abroad acting through a "next friend," corporations, etc. An important feature is that it merely gives redress to a *specific* person or entity, and never makes any general statement of law. It could, hence, never declare a law unconstitutional, though it would give immediate relief, so soon as the law in question acted upon any person.

Art. 130—Interior. Although the term "Gobernación" is correctly translated by "Interior," it should be noted that the jurisdiction of these executive departments in Mexico and the United States is wholly different. To "Gobernación" pertain all matters of relationship between the federal and state governments, elections, etc.

Art. 130. The "Leyes de Reforma" constitute a group of organic laws which, as their name indicates, aimed to bring about certain social reforms, foremost among which was the complete separation of church and state. They represent the outgrowth of that movement, one of whose chief manifestations was the Constitution of 1857, although not incorporated in that document. The most important and radical provisions of these laws were enacted in 1859 while the Liberal Government was established at Vera Cruz. They were consolidated into a single law enacted during the presidency of Sebastian Lerdo de Tejada, under date of December 14, 1874. Its provisions form the basis of articles 3, 5, portions of 27, and Art. 130 of the Constitution of 1917, but many sweeping innovations have been introduced.

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